

GD GOENKA | SCHOOL OF HEALTHCARE

& ALLIED SCIENCES

Department of Optometry

M. Optometry | Master of Optometry

2025-2027

Programme Handbook



PREFACE

GD Goenka University is an internationally acclaimed and premier institution of higher education in India. Quality education aimed at directing the students towards research, innovation and extension is the defining element of the GD Goenka University. The GD Goenka University, recognized by UGC, aspires to be a global leader in the 21st Century higher education ecosystem through enshrined core values of intellectual excellence, collegiality, diversity and integrity. GD Goenka University is also recognized as QS IGUAGE “Diamond” rated University.

GD Goenka University envisions all its programmes in the best interest of the students. It imbibes an outcome based curriculum for all its programmes to provide a focused, student- centric syllabus with an agenda to structure the teaching-learning experiences in a more outcome based manner.

The outcome based curriculum strengthens students ‘experiences and prepares the students for academia, employability and life-long learning.

Each programme reflects the promise to accomplish the learning outcomes by studying the courses. The graduate attributes encompass values related to the well-being, emotional stability, critical thinking, and social justice.

The redesigned curriculum focuses on the multi-disciplinary nature of the field of Optometry with emphasis on core optometry subjects with skills to represent the process of vision testing, spectacle and contact lens dispensing and low vision rehabilitation.

Another important part is the aspect of realizing the concept into graphical representation and a workable design. Students are exposed to research and hands on project-based education with active laboratory sessions. Visiting faculty and external examiners are professionals and academicians chosen from the field of optometry.

Students develop their projects with inputs from a highly driven team of faculty members and working professionals.

GD Goenka University hopes that the outcome-based curriculum will help students in realizing their careers as informed, sensitive and responsible optometrists.

Salient features of this model curriculum are:

1. Curriculum has been designed in such a way that it encourages innovation and research.
2. The curriculum has been designed where the students can understand the industry requirements and have hands-on experience.
3. The students will develop a problem-solving approach and will meet the challenges of future.
4. Emphasis on hands-on training has been promoted by including summer internships and general and Specialty clinical postings.
5. Master of Optometry will ensure the completion of curriculum to help students to achieve better employability, start-ups, and other avenues for higher studies.

ACKNOWLEDGEMENT

Programme: Master of Optometry

Year/Semester: 2 Years/ 4 Semesters

Session: 2025-2027

The development of an outcome-based Model Curriculum for postgraduate degree course in the Department of Optometry is a result of thoughtful deliberations at various stages of dedicated and specialized experts. This model curriculum has been framed to meet the expectations of an academically challenging environment, develop problem-solving skills by students and align with current standards and to enrich the students to make them self-enablers and/or match job requirements on successful completion of their degrees.

We are greatly gratified Prof (Dr.) Saahil Arora for his supervision contribution, guidance, and support throughout the development of this curriculum. Special thanks and gratitude to Prof. (Dr.) Kim Menenzes, Vice Chancellor, GD Goenka University and Registrar, GD Goenka University who have been instrumental and encouraging throughout the process of developing this curriculum. Last, but not the least, we also sincerely thank to the faculty coordinators who have contributed for development of this curriculum.

We acknowledge by signing below that we have received and have access to a copy of syllabus of the M.Optomtry Programme indicated above. We have designed the M.Optomtry Syllabus in Outcome Based Format and understand the programme specific outcomes of the M.Optomtry Programme.

Furthermore, we acknowledge that the contents of the M.Optomtry syllabus have been explained and/or read to us. We understand the requirements concerning textbook(s), assignments, practicum and evaluation and how the final grades will be determined with respect to achieving Course Outcomes.

Prepared by

Faculty Coordinator



Approved by Vice Chancellor

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1. Introduction

The GD Goenka Group has made a name for itself in the field of education. Over a period of time, the various educational entities of the group have converged into a fully functional corporate academy. Resources at GDGU have been continuously upgraded to optimize opportunities for the students. Our students are groomed in a truly inter-disciplinary environment where in they develop integrative skills through interaction with students from engineering, social sciences, management and other study streams.

The GD Goenka story goes back to the chain of schools that offered an alternative option of world-class education, pitching itself against the established elite schools, which had enjoyed a position of monopoly till then. Having blazed a new trail in school education the focus of the group was aimed at higher education. With the mushrooming of institutions of Higher Education in the National Capital Region, the university considered it very important that students take informed decisions and pursue career objectives in an institution, where the concept of education has evolved as a natural process.

GD Goenka University is established under the Haryana Private University Act 2006, received the approval of Haryana Legislature vide Amendment Act #36 of 2013 and consent of the Hon'ble Governor of Haryana on 11th April 2013, which was published in the Gazette notification vide Leg. No .10/2013, dated 3rd May, 2013.

GD Goenka University Is Unique Because of Its

Enduring legacy of providing education to high achievers who demonstrate leadership in diverse fields. Protective and nurturing environment for teaching, research, creativity, scholarship, social and economic justice.

2. Objectives

- a) To impart undergraduate, post graduate and doctoral education in identified areas of higher education.
- b) To undertake research programs with industrial interface.
- c) To integrate its growth with the global needs and expectations of the major stakeholders through teaching, research, exchange & collaborative programs with foreign, Indian Universities/Institutions and MNCs.
- d) To act as anodal center for transfer of technology to the industry.
- e) To provide job oriented professional education to the Indian student community with particular focus on Haryana.

3. About School

Established in the year 2016, the School of Healthcare and Allied Sciences at G D Goenka University is one of the best Optometry colleges in Delhi NCR. It offers an unmatched array of Academic and Research opportunities including cutting-edge innovation-based programs in biosciences. Our globally recognized graduate & post-graduate programs exhibit phenomenal healthcare education & professional training. As one of the top B Optometry colleges in Gurgaon, the school is home to more than 1,000 aspiring students nurturing their choicest professional goals in around 21 academic programs including Doctoral research.

Presently, the School of Healthcare & Allied Sciences is committed to providing the foundation for careers in Physiotherapy, Optometry, Optometry, Clinical Research, and Healthcare, Yoga Sciences, Medical Lab Technology, Cardiovascular Technology, Public Health, Optometry, Radiology and Imaging Technology, Nutrition and Health and Nursing. We offer a dynamic research-intensive environment that fosters excellence in interdisciplinary research to discover solutions to state, national, and international challenges in healthcare.

School of Healthcare and Allied Sciences (SOHAS) includes:

I. Department of Optometry

- i. Bachelor of Optometry (B. Optometry): MoHFW & UGC approved four years degree Programme
- ii. Masters of Optometry (M. Optometry): MoHFW & UGC approved two years Master's Programme

II. Department of Allied Sciences

- i. Bachelor of Physiotherapy (BPT)
- ii. Master of Physiotherapy (MPT)
 - Musculoskeletal (previously known as Orthopedics)
 - Neurology
 - Cardiopulmonary
 - Sports
- iii. Bachelor of Optometry (B. Optom)
- iv. Master of Optometry (M. Optom)
- v. B. Sc. (Bachelor of Science)
 - Nutrition & Health
 - Cardiovascular Technology
- vi. Bachelor In Medical Radiology and Imaging Technology (BMRIT)
- vii. Bachelor in Medical Laboratory Sciences (BMLT)
- viii. M.Sc. (Master of Science)
 - Nutrition and Health
 - Healthcare and Clinical Research
- ix. Masters in Medical Laboratory Science

- Clinical
- Medical
- Hematology
- Pathology
- x. Public Health
- xi. Master in Public Health (MPH)
- xii. Doctor of Philosophy (Ph.D.)
 - Full Time
 - Part Time

3.1 School Vision

To be an internationally recognized center for healthcare education and research, linking science and technology to enable skilled, competent and compassionate professionals to provide holistic healthcare services'

3.2 School Mission

To prepare globally competent health professionals through:

- Strong foundation in the fundamentals linking knowledge and skills through experiential learning
- Inter-disciplinary project-based learning with focus on innovation & research that improve employability.
- Flexible and distinctive pedagogy that leverage technology and instill notion of lifelong learning.
- Association with top ranked institutions and leading industries to facilitate exchange programmes, trainings and joint research
- Inculcation of ethical principles and understanding about societal & environmental responsibilities
- Curriculum which includes projects on good health and well-being of local communities to drive sustainable growth

3.3 Sustainable Development Goals

Through the curriculum, pedagogy and execution of various programmes, SOHAS is trying to achieve some of the important Sustainable Development Goals:

1. Good health and well-being: Healthcare and allied sciences encompass various disciplines that contribute to understanding, maintaining, and improving human health. Here are some ways in which they are connected: such as disease prevention and management, medical diagnostics, treatment and therapy, health technology, innovation & research, evidence-based practices, global health and humanitarian efforts. The advancements and knowledge generated in these disciplines contribute to disease prevention, diagnosis, treatment, and overall improvement of health outcomes, both at an individual and societal level.

2. Quality education: In healthcare and allied sciences, it is crucial for producing skilled healthcare professionals who can provide competent and compassionate care. Here are some key aspects that contribute to quality education in this field includes accredited institutions, experienced faculty, comprehensive curriculum, state-of-the-art facilities, ethical and patient-centered education and Research opportunities, practical problem-solving skills, collaboration with healthcare facilities, emphasis on communication skills. By incorporating these elements into the education of medical and allied sciences, institutions can produce well-rounded, competent, and compassionate healthcare professionals who positively impact the health and well-being of individuals and communities

3. Clean water and sanitation: It acts as major critical factors in promoting public health and preventing the spread of waterborne diseases. Healthcare and allied sciences play a significant role in understanding the importance of clean water and sanitation and developing strategies to ensure access to safe water and proper sanitation facilities. By addressing these issues, we can improve overall health outcomes and reduce the burden of waterborne diseases worldwide

4. Industry, innovation, and infrastructure: It is an essential component that contributes to the advancement of healthcare and allied sciences. They play a critical role in driving progress, improving healthcare delivery, and promoting medical research and development. Industry, innovation, and infrastructure are crucial pillars that drive advancements in medical and allied sciences. They enable the development of new medical technologies, treatments, and healthcare delivery models, ultimately leading to improved patient outcomes and better healthcare access for individuals and communities around the world.

5. Responsible consumption and production: Utilization of resources efficiently, minimizing waste, and ensuring ethical and sustainable practices throughout the healthcare industry is highly needed. There are few ways in which responsible consumption and production are related to medical and allied sciences like sustainable healthcare practices, ethical research and development, rational use of medications, proper disposal of medical waste, reduced use of single-use items, recycling & waste reduction and public awareness & education. By integrating responsible consumption and production practices into medical and allied sciences, the healthcare industry can minimize its environmental impact, reduce waste, and contribute to more sustainable and ethical healthcare practices. This not only benefits the environment but also supports the well-being of communities and future generations.

3.4 NEP Implementation:

The importance of short term professional and vocational courses with exit options has been emphasised in the New Education Policy 2020. The programs in Optometry have been prepared keeping in mind the flexibility for students in terms of multiple entry and exit options to streamline their talent and creativity.

4. Department of Optometry

Department of Optometry offers postgraduate Master of Optometry (M.Optometry): Two years Programme.

4.1. Graduate Attributes

GA1: Creative, Sensitive and Adaptable Optometry Professional
GA2: Equipped with Professional Ethics
GA3: Good at communication: Interpersonal and graphical
GA4: Rational decision maker
GA5: Collaborative with multidisciplinary knowledge
GA6: Good at Modern Technology Usage.

4.2. Programme Outcomes

Programme Outcomes (POs) of SOHAS of Bachelor of Optometry Programme: Students of **Postgraduate Master of Optometry** degree Programme at the time of graduation will have-

PO1. Demonstrate **advanced knowledge and critical understanding** of vision science, in binocular vision, low vision, advanced contact lenses, research methodologies and biostatistics to diagnose and manage complex ocular conditions and innovative treatment modalities to optimize patient care outcomes.

PO2. Able to **plan and execute** patient care strategies by integrating advanced clinical skills, interdisciplinary collaboration, and cutting-edge technologies to optimize clinical outcomes and enhance patient satisfaction.

PO3. Able to **Create and lead initiatives** in vision correction and rehabilitation by integrating principles of environmental sustainability, economic efficiency, and cultural competence into the development and implementation of novel approaches to vision care delivery.

PO4. Develop the **research capability** to contribute into the advancement of optometry through experimental design, data analysis, and dissemination of leading findings.

PO5. Demonstrate **leadership** skills and collaborate effectively within diverse healthcare teams, advocating for the integration of optometric services into interdisciplinary care models and promoting excellence in patient-centred care delivery.

PO6. Demonstrate **ethical integrity** and professionalism in all aspects of optometric practice, exhibiting sensitivity to diverse patient populations and adhering to the highest standards of clinical competence, confidentiality, and patient advocacy.

PO7. Able to deliver successful demonstrations, documentation, advice, and counselling by **effectively & empathetically communicating** to individuals and communities for prioritize eye health and wellness.

PO8. Demonstrate accountability and responsibility for policies of **legal and regulatory frameworks** to uphold the integrity and credibility of the optometry profession.

PO9. Able to select & apply **state-of-the-art diagnostic technologies** including **advanced clinical instruments** for ocular assessments, develop personalized treatment plans, and monitor patient progress with precision and accuracy.

PO10. Understand & apply **sustainable practices** and advocate for environmental stewardship within optometric practice, integrating principles of waste reduction, energy conservation, and eco-friendly materials usage into clinical protocols and facility management.

PO11. Understand the need of **lifelong learnings** and professional development to stay abreast of advancements in optometric research, technology, and patient care.

5. The Programme M. Optometry

The Master of Optometry (M.Optometry) is an engaging and comprehensive programme that blends science and technology to provide students with a high level of contextual excellence in optometry. Through a mix of theoretical and practical subjects, students gain expertise in advanced clinical optometry, ocular diagnostics, therapeutic interventions, and vision rehabilitation. With a focus on evidence-based practice and hands-on training in leading eye care facilities, graduates are equipped to excel as compassionate optometrists, contributing to the advancement of the optometry profession and enhancing the vision health of individuals and communities.

5.1. Eligibility Criteria

Bachelor of Optometry or equivalent from a recognised university by any Indian University with pass marks (50%) or minimum 5.5 CGPA. He/she has Qualified CET / interview / Entrance test / Goenkan Aptitude Test conducted for the purpose.

5.2. Career Options

Graduates of the Master of Optometry (M.Optometry) programme has various career prospects in both the public and private sectors. Opportunities exist in hospitals, clinics, research centers, and eye care facilities, where optometrists can provide specialized services. Additionally, they can explore roles in academic institutions, contribute to research, and establish their own private optometric practices, making a positive impact on eye health and vision care.

5.3. Programme Duration

The minimum period required for completion of the Master of Optometry shall be 2 academic years (four semesters), and the maximum permissible period for completion of the Master of Optometry shall be 3 years.

5.4. Programme Specific Outcomes

After completion of the program, students will be able to:

PSO1. Graduates will master a comprehensive range of optometry-specific subjects and will specialize in paediatric and binocular vision, low vision, contact lenses, glaucoma management, and refractive surgeries, enabling them to deliver specialized and high-quality eye care services as proficient and skilled optometrists.

PSO2. Graduates will be well-prepared to pursue diverse and specialized career paths within the field of optometry and have the expertise in clinical practice, academic research, vision science, public health initiatives, vision rehabilitation programs, contact lens fitting, ocular disease management, and refractive surgery consultation.

PSO3. Graduates will be able to do research in patient centric treatment modalities in specialized domains, empowering an evidence-driven care to the patients and can establish their own optometric practices, meeting the diverse needs of patients and communities.

The classes will be held from Monday to Friday from 9.00 am to 4.00 pm.

5.5. Programme Scheme

For M. Optometry Programme Scheme is attached in Annexure I.

5.6. Syllabus

The course of study for M. Optometry shall include Semester Wise Theory & Practical, and offer a minimum of 100 credits, distributed across semesters as described below:

5.7.1. Table 1: Semester wise credits distribution

Semester	Credit Points
I	24
II	27
III	26
IV	23
Total credit points for the program	100

5.7.2. Table 2: Programme structure of Master of Optometry

S. No.	Course Code	Course Title	LTP/ week	Total Credits	Course Type
Semester-I					
1	MOP1701	Epidemiology & Community Eyecare	2+0+0	2	Community
2	MOP1702	Research Methodology & Biostatistics	3+0+0	3	Core
3	MOP1704	Ocular Diseases and Diagnostics I	3+0+0	3	Core
4	MOP1508	Research Project-I	0+0+12	6	Research
5	MOP1509	Clinic - I	0+0+16	8	Internship
6	MOP1510	Refractive Surgery Workshop	0+0+4	2	DSE
Total			40 h	24	
Total clinical+ Research Hours: 320 Hours					
Total Hours for First semester: 320 + 80 = 400 Hours					
Semester-II					
1	MOP1706	Ocular Diseases and Diagnostics II	3+0+0	3	Core
2	MOP1004	Basic Contact Lens	2+0+2	3	Core
3	MOP1002	Binocular Vision	2+0+2	3	Core
4	MOP1003	Low Vision Care and Rehabilitation-I	2+0+2	3	Core
5	MOP1511	Research Project-II	0+0+12	6	Research
6	MOP1512	Clinics-II	0+0+6	3	Internship
7	MOP1513	Specialty Clinics-I	0+0+8	4	Internship

8	MOP1514	Academic and Research Writing (Certificate course)	0+0+4	2	GE-II
Total			45 h	27	
Total Clinical+ Research Hours: 300 Hours					
Total Hours for First semester: 300 + 150 = 450 Hours					
Semester-III					
1	MOP2103	Advanced Contact Lens-II	2+0+2	3	Core
2	MOP2102	Low Vision Care and Rehabilitation-II	2+0+2	3	Core
3	MOP2703	Vision Therapy	2+0+2	3	Core
4	MOP2704	Pediatric and Geriatric Optometry	2+0+0	2	Core
5	MOP2508	Research Project-III	0+0+12	6	Research
6	MOP2509	Clinics-III	0+0+6	3	Internship
7	MOP2510	Specialty Clinics-II	0+0+8	4	Internship
8	MOP2511	Myopia Control Workshop	0+0+4	2	DSE
Total			44 h	26	
Total clinical+ Research Hours: 300 Hours					
Total Hours for First semester: 300 + 140= 440 Hours					
Semester-IV					
1	MOP2512	Clinics-IV*	0+0+12	6	Internship
2	MOP2513	Speciality Clinics-III*	0+0+20	10	Internship
3	MOP2514	Research Project-IV (Dissertation)	0+0+14	7	Research
Total			44 h	23	
Total clinical+ Research Hours: 440 Hours					

**Internship of 756 hours to be completed in a minimum of 6 months*

Semester I

MOP1701: EPIDEMIOLOGY AND COMMUNITY EYE CARE

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences		
2. Program Name: M. Optometry Semester: I	3. Course Code	4. L-T-P	5. Credits
	MOP1701	2-0-0	2
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC		
7. Eligibility Criteria for entry:			
8. Prerequisite(s), if any (Mention course code and name)			
9. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester			
10. Focus: Employability Entrepreneurship Skill Development Basic Knowledge ☒ Career path course may lead to: Community eyecare practitioner, NHOs			
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies	
12. Brief Syllabus: Course Objectives (COs): COs1: Develop an understanding of the prevalence, incidence, and distribution of visual impairment, and grasp the concepts of health and disease COs2: Apply principles of epidemiology and epidemiological methods to analyze and implement effective screening strategies for eye diseases. COs3: Analyze childhood eye conditions and refractive errors, critically assessing the impact of childhood blindness and the management of refractive errors and presbyopia. COs4: Evaluating and comparing age-related cataract, low vision, diabetic retinopathy, glaucoma, age-related macular degeneration, and other eye conditions, considering their prevalence, impact, and management strategies.			
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)			
Lectures: 30	Tutorials: Nil		Practical's: Nil
13. Course Outcomes (CO) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:			
COMOP1701.1	Develop a comprehensive understanding of the prevalence, incidence, and distribution of visual impairment, and acquire foundational knowledge of the concepts of health and disease to inform eye care practices.		
COMOP1701.2	Apply the principles of epidemiology and epidemiological methods to design, analyze, and implement effective screening and intervention strategies for the prevention and management of eye diseases.		

COMOP1701.3	Critically assess childhood eye conditions and refractive errors, including the impact of childhood blindness, while formulating effective management strategies for refractive errors and presbyopia.
COMOP1701.4	Evaluate and compare the prevalence, impact, and management strategies of age-related cataracts, low vision, diabetic retinopathy, glaucoma, age-related macular degeneration, and other common eye conditions, with an emphasis on evidence-based approaches.
14. UNIT WISE DETAILS No. of Units: 05	
Unit-I Introduction to Visual Impairment and Epidemiology 10 Hours 1.1 Prevalence, Incidence, and Distribution of Visual Impairment 1.2 Concept of Health and Disease 1.3 Principles of Epidemiology and Epidemiological Methods 1.4 Screening for Eye Disease	
Unit-II Childhood Eye Conditions and Refractive Errors 05 Hours 2.1 Childhood Blindness 2.2 Refractive Errors and Presbyopia	
Unit-III Common Eye Conditions in Adults 05 Hours 3.1 Age-Related Cataract 3.2 Low Vision 3.3 Diabetic Retinopathy	
Unit-IV Glaucoma, Macular Degeneration, and Other Eye Conditions 05 Hours 4.1 Glaucoma 4.2 Age-Related Macular Degeneration 4.3 Other Eye Conditions (Vitamin A deficiency 4.4 Corneal and external diseases Amblyopia and squint)	
Unit V- Public Health and Optometry Practice Management 05 Hours 5.1 Prevention Strategies in Eye Care 5.2 Health Care of Community 5.3 Vision2020: Planning and Implementation 5.4 Communication for Health Education 5.5 Health Planning and Management	
15. Instructions for students a) Before coming to the class, please familiarize yourself with various Definitions regarding Prevalence, Incidence. b) Read about the Visual Impairment causes, prevalence rates. c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course. d) All student must secure at least 50% marks in each evaluation component e) All students must submit a project related to Visual Impairment, public health approaches either individually or in groups, to apply the concepts learned in real-world scenarios.	
16. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes ☐ No ☐ Describe (if yes): NA	
17. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3	1. Weak 2. Moderate 3. High ☒
b) SDG: 17	1. Weak 2. Moderate 3. High ☒
18. Title of Lab Manual (if applicable): Not applicable	
19. Books Recommended: Reference Books: 1.GVS Murthy, S K Gupta, D Bachani: The principles and practice of community Ophthalmology, National programme for control of blindness, New Delhi, 2002. E-Book: NA Reference websites: 1. Vashist, P., Gupta, N., Senjam, S.S., & Gupta, V. (Eds.). (2023). Textbook of Community Ophthalmology (1st ed.). CRC	

Press. <https://doi.org/10.1201/9781003291626>

20. E-Learning Resources: NA

NPTEL: NA

Animated Lab Videos: NA

MOOC Supplemented: <https://www.ucl.ac.uk/short-courses/search-courses/masterclass-external-eye-disease>

Participative Learning Component

Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1701.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1701.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1701.3
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1701.4
5.	Unit V	MSE, ESE and Continuous Evaluation	COMOP1701.4

Activities for Differential learning Needs

Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Project (To be done as individual/in group): Interpret prevalence, incidence numericals

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory (2-0-0)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		End term Exam (ETE) – External	60%	

RUBRIC FOR EVALUATION:

(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Product characterization	Development strategy for new product
Market Survey	Basic survey	Comparative survey	Survey for product launch
Project	Plagiarism more than 20%-	Plagiarism 10- 20%	Plagiarism less than 10%
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
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COMOP1701.1	3	1		3		3			3	3	3	1	3	3
COMOP1701.2	3	3	3	3	3	3	3	2	3	3	3	1	3	3
COMOP1701.3	3	2	3	3	3	3	3	2	3	3	3	1	3	3
COMOP1701.4	3	2	3	3	3	3	3	2	3	3	3	1	3	3
Average	3	2	2.2	3	2.2	3	2.2	1.5	3	3	3	1	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No	Lecture/ Tutorial	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	L	Prevalence, incidence and distribution of visual impairment, Methodology, Basics of Epidemiology study methods,	COMOP1701.1	Textbook of Community Ophthalmology
2.	L	Types of study designs, Screening for visual disorders, Childhood blindness, Refractive errors and presbyopia, Age related cataract	COMOP1701.3	Textbook of Community Ophthalmology
3.	L	Low Vision, Diabetic retinopathy, Glaucoma, Age related Macular Degeneration, Vitamin A deficiency	COMOP1701.4	Textbook of Community Ophthalmology
4.	L	Epidemiological Methods Screening for Eye Disease – Refractive errors, Low Vision, Cataract, Diabetic, retinopathy, Glaucoma, Amblyopia, Squint	COMOP1701.4	The principles and practice of community Ophthalmology
5.	L	Blindness, Health Information and Basic Medical Statistics	COMOP1701.2	The principles and practice of community Ophthalmology
6.	L	Communication for Health Education	COMOP1701.3	The principles and practice of community Ophthalmology
7.	L	Health Planning and Management	COMOP1701.2	The principles and practice of community Ophthalmology
8.	L	Health care of community, How to plan and implement Vision2020	COMOP1701.2	The principles and practice of community Ophthalmology

MOP1702: RESEARCH METHODOLOGY & BIOSTATISTICS

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Program Name: M. Optometry Semester: I	3. Course Code	4. L-T-P	5. Credits	
	MOP1702	3-0-0	3	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Eligibility Criteria for entry:				
8. Prerequisite(s), if any (Mention course code and name)				
9. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester				
10. Focus: Employability ☒ Entrepreneurship Skill Development ☒ Basic Knowledge ☒ Career path course may lead to: Researcher				
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☒ Participative Learning ☒ Problem solving methodologies		
12. Brief Syllabus: Course Objectives (COs): COs1: To provide the students the basic knowledge in Bio-statistics. COs2: At the conclusion of the course, the students will have the knowledge of data collection, statistical application and finally, presentation of the statistical data.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: 45		Tutorials: Nil		Practical's: Nil
13. Course Outcomes (CO)				
Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1702.1	Understand the significance and necessity of research in optometry, including different research methods, conducting literature reviews, and designing research projects.			
COMOP1702.2	Apply research design principles, sampling methods, and data collection tools to formulate and execute a structured research plan under the guidance of a supervisor.			
COMOP1702.3	Analyze and differentiate between quantitative and qualitative data analysis techniques, demonstrating the ability to apply these methods in the context of public health research.			
COMOP1702.4	Apply effective writing skills for students, translating research findings into clear and coherent written communication, and addressing common issues in research writing.			
COMOP1702.5	Analyze and interpret statistical data, including measures of central tendency such as mean, median, standard deviations, skewness, and kurtosis.			
COMOP1702.6	Apply knowledge of probability distribution, correlation, regression, significance tests, and confidence intervals to conduct statistical analyses in the context of research questions and hypotheses.			
14. UNIT WISE DETAILS				No. of Units: 05
Unit-I				10 Hours
Need for Research in optometry Introduction to research methods, Conducting a literature review, Research design, Sampling methods, Data collection and data collection tools,				
Unit-II				8 Hours
Data analysis: Quantitative, and Qualitatively, Public health research, Issues in Research, Writing skills for students				

Unit-III Introduction and method of collecting and presenting of statistical data, Calculation and interpretation of various measures like mean, median, standard deviations, Skewness and Kurtosis, Probability distribution, Correlation and regression, Significance tests and confidence intervals		10 Hours	
Unit-IV Parametric tests: Test for single proportion, Test for Equality of proportions, Test for single mean, Test for equality of means		7 Hours	
Unit-V ANOVA: - One-way, Two-way, non-parametric tests – Chi-square tests, Fisher's exact test, McNamar test, Mann-Whitney U-test, Median test, Sign test, Wilcoxon test		10 Hours	
15. Instructions for students a) Before coming to the class, please familiarize yourself with Introduction to research methods b) Read about the different types of research methods c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course. d) All student must secure at least 50% marks in each evaluation component e) All students must submit a research proposal as their assignment			
16. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes _____ No ☒ Describe (if yes): NA			
17. SDG Number (Mention SDGs number out of 17 SDGs for which this course is relevant)	SDG level of correlation (Mention the level of correlation for each SDG)		
a) SDG: 3	1. Weak 2. Moderate 3. High ☒		
b) SDG: 17	1. Weak 2. Moderate 3. High ☒		
18. Title of Lab Manual (if applicable): Not applicable			
19. Books Recommended: Reference Books: - Methods in Biostatistics by B.K Mahajan - Probability and Statistics by Murray Book: - Research Methodology by SM Israni Reference websites: https://www.scribbr.com/category/methodology/ https://www.cebm.ox.ac.uk/resources/ebm-tools/study-designs			
20. E-Learning Resources: NA NPTEL: https://onlinecourses.nptel.ac.in/noc23_ge36/preview Animated Lab Videos: NA MOOC Supplemented:			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1702.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1702.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1702.3 COMOP1702.4
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1702.4 COMOP1702.5
5.	Unit V	MSE, ESE and Continuous Evaluation	COMOP1702.5 COMOP1702.6

Participative Learning Component			
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Project (To be done as individual/in group): Data analysis of shared research data and interpretation

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory (3-0-0)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		End term Exam (ETE) – External	60%	

RUBRIC FOR EVALUATION: (At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Product characterization	Development strategy for new product
Market Survey	Basic survey	Comparative survey	Survey for product launch
Project	Plagiarism more than 20%-	Plagiarism 10- 20%	Plagiarism less than 10%
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
COMOP1702.1	3	3	3	3	2	3	3	2	3	3	3	3	3	3
COMOP1702.2	3	3	3	3	2	3	3	2	3	3	3	3	3	3

COMOP1702.3	3	3	3	3	2	3	3	2	3	3	3	3	3	3
COMOP1702.4	3	3	3	3	2	3	3	2	3	3	3	3	3	3
Average	3	3	3	3	2	3	3	2	3	3	3	3	3	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S.No.	Lecture/Tutorial (L/T)	Topics / Sub-Topics	Course Outcome	Pre-Reading
1.	L	Need for Research: Need for Research in optometry Introduction to research methods	COMOP1702.1	Understanding research definition and use
2.	L	Conducting a literature review	COMOP1702.1	PICO
3.	L	Research design, Sampling methods	COMOP1702.1	Research Methodology by SM Israni
4.		Data collection and data collection tools	COMOP1702.1	Research Methodology by SM Israni
5.	T/L	Data analysis: Quantitative, and Qualitatively, Public health research, Issues in Research, Writing skills for students	COMOP1702.2	Understanding research data types and entry
6.	T	Measures of Central Tendency: Introduction and method of collecting and presenting of statistical data, Calculation and interpretation of various measures like mean, median, standard deviations, Skewness and Kurtosis, Probability distribution	COMOP1702.3, COMOP1702.4	Understanding about the mean, median mode
7.	T	Correlation and regression, Significance tests and confidence intervals	COMOP1702.4	Methods in Biostatistics by B.K Mahajan
8.	T	Statistical Tests: Parametric tests Test for single proportion, Test for Equality of proportions, Test for single mean, Test for	COMOP1702.4, COMOP1702.5	Need of statistical tests

		equality of means		
9.	T	ANOVA: One way, Two way, Non-parametric tests – Chi-square tests, Fisher's exact test, McNemar test, Mann-Whitney U-test, Median test, Sign test, Wilcoxon test	COMOP1702.5, COMOP1702.6	Need of statistical tests

MOP1704: OCULAR DISEASES AND DIAGNOSTICS I

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences		
2. Program Name: M. Optometry Semester: I	3. Course Code	4. L-T-P	5. Credits
	MOP1704	3-0-0	3
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC		
7. Eligibility Criteria for entry:			
8. Prerequisite(s), if any (Mention course code and name) None			
9. Frequency of offering (check one): Odd Even Any Semester Both Semester ☒			
10. Focus: Employability ☒ Entrepreneurship Skill Development ☒ Basic Knowledge ☒ Career path course may lead to: Ocular diagnostic specialist, glaucoma specialist, contact-lens specialist			
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies	
12. Brief Syllabus: Course Objectives (COs): COs1: Evidence based approach to Diagnosis, Clinical decision Making, Management and co-management of anterior segment ocular diseases. COs2: Developing more reading ability of scientific journals for more evidence-based management with recent understanding of diseases.			
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)			
Lectures: 45		Tutorials: Nil	Practical's: Nil
13. Course Outcomes (CO) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:			
COMOP1704.1	Recall and demonstrate a refresher understanding of anterior segment ocular diseases, including their diagnosis and therapeutic management, as well as glaucoma diagnosis and therapeutics		
COMOP1704.2	Apply knowledge acquired in Unit 1 to critically assess and diagnose anterior segment ocular diseases and glaucoma, integrating therapeutic approaches effectively in clinical scenarios.		
COMOP1704.3	Analyze the advanced diagnostic techniques and technologies to interpret and evaluate corneal and anterior segment conditions.		
COMOP1704.4	Utilizing advanced diagnostic technologies for accurate assessment and management.		
14. UNIT WISE DETAILS			No. of Units:
03			
Unit-I			15
Hours			
Understanding Ocular Diseases- Refresher of anterior segment ocular diseases, diagnosis and therapeutics, Refresher of glaucoma			

diagnosis and therapeutics			
Unit-II			15
Hours			
Anterior Segment Diagnostics- Specular Microscopy, Topography, Corneal Hysteresis, Orbscan, Pentacam, Pachymetry, Abberometry, AS OCT, A-scan			
Unit-III			15 Hours
Glaucoma Diagnostics- ONH Evaluation, Gonioscopy, Perimetry, HRT			
15. Instructions for students a) Before coming to the class, please familiarize yourself with various ocular diseases b) Read about the interpretation approach of different ocular diagnostics. c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course. d) All student must secure at least 50% marks in each evaluation component e) All students must submit a project related to diagnostic interpretations, either individually or in groups, to apply the concepts learned in real-world scenarios.			
16. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes No ☒			
Describe (if yes): NA			
17. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ☒	
b) SDG: 4		1. Weak 2. Moderate 3. High ☒	
18. Title of Lab Manual (if applicable): Not applicable			
19. Books Recommended: Reference Books: 1. Clinical Ophthalmology: Jack J Kanski 2. Diagnostics and imaging techniques in Ophthalmology: Amar Agarwal E-Book: NA Reference websites: 1. https://www.imo.es/en/diagnostic-tests/anterior-segmentoct/#:~:text=This%20test%20provides%20an%20objective,in%20cases%20of%20closed%2Dangle 2. https://www.ncbi.nlm.nih.gov/books/NBK585055/			
20. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: https://www.ucl.ac.uk/short-courses/search-courses/masterclass-external-eye-disease			
Participative Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1704.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1704.2, COMOP1704.3, COMOP1704.4
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1704.2, COMOP1704.4
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Project (To be done as individual/in group): Interpret diagnostics reports and case study of patients with glaucoma, cataract, keratoconus.

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory (3-0-0)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		End term Exam (ETE) – External	60%	

RUBRIC FOR EVALUATION:

(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Product characterization	Development strategy for new product
Market Survey	Basic survey	Comparative survey	Survey for product launch
Project	Plagiarism more than 20%-	Plagiarism 10- 20%	Plagiarism less than 10%
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
COMOP1704.1	3	1		3		3			3	3	3	3	3	3
COMOP1704.2	3	3	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1704.3	3	2	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1704.4	3	2	3	3	3	3	3	2	3	3	3	3	3	3
Average	3	2	2.2	3	2.2	3	2.2	1.5	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Tutorial (L/T)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	L	Introduction to Ocular Diseases	COMOP1704.1	Overview of anterior segment diseases

2	L	Refresher on anterior segment ocular diseases (cataract, keratoconus)	COMOP1704.1	Prior knowledge of common ocular diseases
3	L	Diagnosis of anterior segment diseases	COMOP1704.1	Key diagnostic tools and methods
4	L	Refresher on glaucoma diagnosis	COMOP1704.1	Pathophysiology of glaucoma
5	L	Introduction to anterior segment diagnostics	COMOP1704.2	Fundamentals of imaging techniques
6	L	Specular Microscopy and Corneal Topography	COMOP1704.2	Technology overview
7	L	Corneal Hysteresis and Orbscan	COMOP1704.2	Clinical applications
8	L	Pentacam and Pachymetry	COMOP1704.2	Instrument-specific reading
9	L	A-scan and its applications	COMOP1704.2	Diagnostic relevance
10	L	Aberrometry and AS-OCT	COMOP1704.4	Advanced imaging techniques
11	L	Introduction to glaucoma diagnostics	COMOP1704.2	Basics of optic nerve head evaluation
12	L	Optic Nerve Head Evaluation techniques	COMOP1704.3	Anatomy and assessment tools
13	L	Gonioscopy for glaucoma evaluation	COMOP1704.3	Practical use and interpretation
14	L	Perimetry and HRT in glaucoma diagnostics	COMOP1704.3, COMOP1704.4	Visual field analysis techniques

MOP1508: RESEARCH PROJECT-I

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Program Name: M. Optometry		3. Course Code	4. L-T-P	5. Credits
Semester: I		MOP1508	0-0-12	6
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Eligibility Criteria for entry:				
8. Prerequisite(s), if any (Mention course code and name): None				
9. Frequency of offering (check one): Odd Even Any Semester Both Semester ☒				
10. Focus: Employability ☒ Entrepreneurship Skill Development ☒ Basic Knowledge ☒ Career path course may lead to: Researcher / Academician				
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning ☒ Problem solving methodologies		
12. Brief Syllabus: Course Objectives (COs): COs1: Demonstrate an in-depth understanding of the research topic by conducting an extensive literature search, identifying key concepts, theories, and existing research in the field. COs2: Apply their knowledge and understanding to develop a comprehensive research protocol, demonstrating proficiency in outlining the study's objectives, methodology, and research design. COs3: Enhance their communication skills by presenting their research proposal to their guide/supervisor, effectively articulating the research plan, rationale, and expected outcomes. COs4: Engage in the peer review process by presenting their research proposal in front of experts, actively participating in discussions and incorporating constructive feedback to refine and improve the research plan. COs5: Gain knowledge about institutional research boards and ethics committees, understanding their roles and significance in research. In institutions with such boards, students will apply this knowledge by seeking approval for their research proposals. COs6: Synthesize their research proposal, incorporating feedback from both their guide/supervisor and expert reviewers, to create a polished and professional presentation suitable for academic and ethical review committees				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures:		Tutorials: Nil		Practical's: 180

13. Course Outcomes (CO) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:	
COMOP1508.1	Demonstrate an in-depth understanding of the research topic by conducting an extensive literature search, identifying key concepts, theories, and existing research in the field.
COMOP1508.2	Apply their knowledge and understanding to develop a comprehensive research protocol, demonstrating proficiency in outlining the study's objectives, methodology, and research design.
COMOP1508.3	Enhance their communication skills by presenting their research proposal to their guide/supervisor, effectively articulating the research plan, rationale, and expected outcomes.
COMOP1508.4	Engage in the peer review process by presenting their research proposal in front of experts, actively participating in discussions and incorporating constructive feedback to refine and improve the research plan.
COMOP1508.5	Gain knowledge about institutional research boards and ethics committees, understanding their roles and significance in research. In institutions with such boards, students will apply this knowledge by seeking approval for their research proposals.
COMOP1508.6	Synthesize their research proposal, incorporating feedback from both their guide/supervisor and expert reviewers, to create a polished and professional presentation suitable for academic and ethical review committees
14. UNIT WISE DETAILS No. of Units: 01	
Unit-I 12Hours 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 in front 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.	
15. Instructions for students a) Before coming to the class, please familiarize yourself with various research types b) Read about the different research types c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course. d) All student must secure at least 50% marks in each evaluation component e) All students must submit a research proposal every semester with objectives and methodology.	
16. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes ☐ No ☒ Describe (if yes): NA	
17. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3,4,9	1. Weak 2. Moderate 3. High ☒
b) SDG: 11,17	1. Weak 2. Moderate 3. High ☒
18. Title of Lab Manual (if applicable): Not applicable	
19. Books Recommended: Reference Books: Kothari Research Book E- Book: Research Methodology and Statistics by Yogesh Kumar Reference websites: 1. https://mfs.mkcl.org/images/ebook/Fundamental%20of%20Research%20Methodology%20and%20Statistics%20by%20Yogesh%20Kumar%20Singh.pdf	
20. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA	

Participative Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1508.1, COMOP1508.2, COMOP1508.3, COMOP1508.4, COMOP1508.5, COMOP1508.6
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Practical Content

Sr. No.	Title of the Experiment	Software/Hardware based	Unit Covered	Time Required
1.	Introduction to Research , research types	-	Unit I	2 Hours
2.	Literature Review	-	Unit I	6 Hours
3.	Gap Analysis	-	Unit I	2 Hours
4.	Topic selection	-	Unit I	2 Hours
Value Added Experiments:				

Project (To be done as individual/in group): Research Project individually.

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical (0-0-12)	Regular Practical/Practice & Report Writing - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Presentation Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Product characterization	Development strategy for new product

Market Survey	Basic survey	Comparative survey	Survey for product launch
Project	Plagiarism more than 20%-	Plagiarism 10- 20%	Plagiarism less than 10%
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
COMOP1508.1	3	3	3	3	3	3	3	3	3	3	3	1	3	3
COMOP1508.2	3	3	3	3	3	3	3	3	3	3	3	1	3	3
COMOP1508.3	3	3	3	3	3	3	3	3	3	3	3	1	3	3
COMOP1508.4	3	3	3	3	3	3	3	3	3	3	3	1	3	3
COMOP1508.5	3	3	3	3	3	3	3	3	3	3	3	1	3	3
COMOP1508.6	3	3	3	3	3	3	3	3	3	3	3	1	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	1	3	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No	Practical (P)	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	P	Plan detailed Research Proposal	COMOP1508.1	NA
2.	P	Summarize critical literature search & its interpretation	COMOP1508.2	NA
3.	P	Apply various research methods & designs	COMOP1508.3	NA
4.	P	Demonstrate clinical and research data collection	COMOP1508.4	NA
5.	P	Analyze the process of statistical analysis and construct a dissertation	COMOP1508.5	NA
6.	P	Propose final report based on research findings	COMOP1508.6	NA

MOP1509: CLINICS- I

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Program Name: M. Optometry Semester: I		3. Course Code	4. L-T-P	5. Credits
		MOP1509	0-0-16	8
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective Open Elective VAC		
7. Eligibility Criteria for entry: Bachelor of Optometry				
8. Prerequisite(s), if any (Mention course code and name): None				
9. Frequency of offering (check one): Odd Even Any Semester Both Semester ☒				
10. Focus: Employability ☒ Entrepreneurship Skill Development ☒ Basic Knowledge ☒ Career path course may lead to: Entrepreneur, Skilled Optometrist				
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☒ Participative Learning ☒ Problem solving methodologies		
12. Brief Syllabus: Course Objectives (COs): COs1: The objective of clinics in this semester is to be able to examine the eye and understand the all-eye procedures with clinical management. COs2: 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. COs3: 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. COs4: The log book needs to be signed by the supervisor during every visit. No case record will be considered without the supervisor's signature.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures:		Tutorials:		Practical's: 240
13. Course Outcomes (CO) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1509.1	Demonstrate proficiency in examining the eye and conducting various eye procedures, showcasing the application of theoretical knowledge in a clinical setting.			
COMOP1509.2	Apply their knowledge to clinically manage eye conditions, integrating theoretical concepts with practical skills to ensure comprehensive patient care.			
COMOP1509.3	Actively engage in clinical rotations at community clinics, campus clinics, associated hospitals, and optical/optometric clinics, applying their skills in diverse settings and evaluating the effectiveness of different clinical environments.			
COMOP1509.4	Develop effective documentation skills by maintaining a logbook and case sheets for each patient encounter, ensuring completeness in management and follow-up details.			
COMOP1509.5	Actively collaborate with supervisors during clinical visits, seeking guidance and feedback, and ensuring that the logbook is signed by the supervisor during every visit for proper evaluation.			
COMOP1509.6	Synthesize their clinical experiences, logbook entries, and case sheets, demonstrating professionalism by adhering to mandatory submission requirements and ensuring compliance with supervisor approvals.			

14. UNIT WISE DETAILS		No. of Units: 05
Unit-I: Ocular Examination		4 Hours
Ability to examine for abnormalities of the external eye and adnexa using appropriate instruments and techniques		
● Ability to examine for abnormalities of the cornea using appropriate instruments and techniques ● Ability to use contact and non-contact tonometer to measure intraocular pressure and analyze and interpret the results. ● Ability to examine for abnormalities in the anterior chamber. ● Ability to examine for abnormalities in the iris and assess pupil reflexes ● Ability to examine for abnormalities in the crystalline lens using appropriate instruments and techniques.		
Unit-II: Contact Lens		3 Hours
● Ability to take an appropriate history and symptoms including previous contact lens wear ● Ability to assess anterior eye health. ● Ability to quantify corneal shape and size, and pupil. ● Ability to dispense specialty contact lenses (RGP, Mini Scleral, Scleral, Orthokeratology, etc.).		
Unit-III: Visual Function & Ametropia		3 Hours
● Ability to measure visual function of patients of any age with appropriate tests and techniques. ● Ability to assess visual function in patients with visual impairment. ● Ability to use subjective and objective techniques to identify and quantify ametropia. ● Ability to use appropriate aid of refraction.		
Unit-IV: Ocular Abnormalities		3 Hours
● Ability to take a structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease. ● Ability to assess visual function and the appearance of the eye and adnexa. ● Ability to interpret signs and symptoms of ocular abnormality. ● Ability to make an appropriate management plan, including the ability to make appropriate urgent referrals, for each patient and to involve the patient in the decision-making process.		
UNIT-V: Binocular Vision		3 Hours
● Ability to take an appropriate binocular vision and/or child's history. ● Ability to assess eye alignment and eye movements. ● Ability to assess sensory fusion and stereopsis. ● Ability to assess oculomotor function. ● Ability to assess accommodation. ● Ability to do vision therapy exercises to the needed.		
15. Instructions for students		
a) Before coming to the class, please familiarize yourself with various causes and types of low vision		
b) Read about the different optical and non-optical low vision aids.		
c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course.		
d) All student must secure at least 50% marks in each evaluation component		
e) All students must submit a project related to assistive devices and case-based rehabilitation, either individually or in groups, to apply the concepts learned in real-world scenarios.		
16. Multi-Disciplinary Approach		
(Please mentioned whether this course is multidisciplinary or not)		
Yes No ✓		
Describe (if yes):		
NA		
17. SDG Number	SDG level of correlation	
(Mention SDGs number out of 17 SDGs for which this course is mapping)	(Mention the level of correlation for each SDG)	
a) SDG: 3	1. Weak	2. Moderate 3. High ✓
b) SDG: 17	1. Weak	2. Moderate 3. High ✓
18. Title of Lab Manual (if applicable):		
Not applicable		
19. Books Recommended:		
● Elloitt, D.B. Clinical procedure in primary eye care. Elsevier Limited ● Nancy B. Carlson, Daniel Kurtz: Clinical Procedures for Ocular Examination, 4th edition, Mc Graw Hill Education, USA 2016 ● Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition ● Benjamin William J. Borish's Clinical Refraction, 2nd Edition, Kindle Edition		
Reference Books:		
● HV Nema, Nitin Nema: Diagnostic Procedures in Ophthalmology, 3rd edition, Jaypee Brothers, Medical Publishers Pvt. Limited, 2014 ● A K Khurana: Comprehensive Ophthalmology, 6th edition, Jaypee Brothers Medical Publishers; sixth edition (2015) ● Jack Kanski Brad Bowling, Kanski's Clinical Ophthalmology 8th Edition, Elsevier ● J.B Eskridge, J F. Amos, J D. Bartlett: Clinical Procedures in Optometry, Lippincott Williams and Wilkins, 1991		
E-Book: NA		
Reference websites:		

- <https://www.youtube.com/c/smartoptometry-with-samir>
- <https://brienholdenfoundation.org/international-program/learning-resources/global-optometry-resources/>
- <https://scholar.google.co.in/>
- <https://www.ncbi.nlm.nih.gov/pubmed/>
- <http://webeye.ophth.uiowa.edu/eyeforum/cases.htm>

20. E-Learning Resources: NA

NPTEL: NA

Animated Lab Videos: NA

MOOC Supplemented: <https://www.ucl.ac.uk/short-courses/search-courses/masterclass-external-eye-disease>**Participative Learning Component**

Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1509.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1509.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1509.3
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1509.4
5.	Unit V	MSE, ESE and Continuous Evaluation	COMOP1509.5, COMOP1509.6

Activities for Differential learning Needs

Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Practical Content

Sr. No.	Title of the Experiment	Software/Hardware based	Unit Covered	Time Required
1.	Slit lamp Biomicroscopy and RAPD	Hardware	Unit I	2 Hours
2.	Contact and non-contact tonometer,	Hardware	Unit I	2 Hours
3.	Contact Lens: pre-fitting considerations and dispensing.	Hardware	Unit II	2 Hours
4.	RGP: preliminary examinations, pre-fitting considerations	Hardware	Unit II	2 Hours
5.	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations	Hardware	Unit II	2 Hours
6.	Orthokeratology: preliminary examinations, pre-fitting considerations	Hardware	Unit II	2 Hours
7.	Visual function tests	Hardware	Unit III	1 Hour
8.	Retinoscopy	Hardware	Unit III	2 Hours
9.	History Taking	Hardware	Unit III	1 Hour

10.	Visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms	Hardware	Unit IV	1 Hour
11.	Binocular Vision	Hardware	Unit V	1 Hour
Value Added Experiments:				

Project (To be done as individual/in group): Case Presentation

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-16)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION: (At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Product characterization	Development strategy for new product
Market Survey	Basic survey	Comparative survey	Survey for product launch
Project	Plagiarism more than 20%-	Plagiarism 10- 20%	Plagiarism less than 10%
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
COMOP1509.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1509.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1509.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1509.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Ocular Examination: Slit lamp Biomicroscopy, Tonometry and RAPD	COMOP1509.1	Clinical procedure in primary eye care
2.	P	Ocular Examination: examine for abnormalities of the cornea, contact and non-contact tonometer, abnormalities in the anterior chamber, abnormalities in the crystalline lens	COMOP1509.2	Clinical procedure in primary eye care
3.	P	Contact Lens: history taking, preliminary examinations, pre fitting considerations and dispensing.	COMOP1509.3	NA
4.	P	RGP: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1509.3	NA
5.	P	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1509.3	NA
6.	P	Orthokeratology: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1509.3	NA
7.	P	Visual Function & Ametropia: visual function tests and their appropriate techniques	COMOP1509.3	Clinical procedure in primary eye care
8.	P	Visual Function & Ametropia: Ametropia and its quantification	COMOP1509.4	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
9.	P	Ocular Abnormalities: structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease	COMOP1509.4	Kanski's Clinical Ophthalmology 8th Edition
10.	P	Ocular Abnormalities: visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms, appropriate management plan and urgent referrals	COMOP1509.4	Kanski's Clinical Ophthalmology 8th Edition
11	P	Binocular Vision: appropriate binocular history taking, binocular vision assessment and diagnosis.	COMOP1509.5	NA

MOP1510: REFRACTIVE SURGERY WORKSHOP

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Program Name: M. Optometry Semester: I	3. Course Code	4. L-T-P	5. Credits	
	MOP1510	0-0-4	2	
6. Type of Course (Tick one):	Programme Core Programme Elective ☒ Open Elective VAC			
7. Eligibility Criteria for entry:				
8. Prerequisite(s), if any (Mention course code and name): None				
9. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester				
10. Focus: Employability ☒ Entrepreneurship Skill Development Basic Knowledge ☒ Career path course may lead to: Refractive Clinic Optometrist				
11. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning ☒ Problem solving methodologies		
12. Brief Syllabus: Course Objectives (COs): COs1: The students would get to know about the different refractive surgical options available. COs2: The students will develop the ability to understand patient selection and evaluation for refractive surgeries. COs3: The students will be aware of the potential refractive surgical complications. COs4: The students will explore the cutting-edge technologies and equipment in refractive surgery.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 60
13. Course Outcomes (CO) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1510.1	Identify and differentiate between various refractive errors, such as myopia, hyperopia, astigmatism, and presbyopia, and understand their underlying causes and clinical presentations.			
COMOP1510.2	Evaluate candidates for refractive surgery by assessing disorders that affect refraction, including tear film, corneal, iris, pupil, lens, and CNS conditions, ensuring comprehensive preoperative screening.			
COMOP1510.3	Demonstrate competence in pre- and post-operative evaluations, including history-taking, ocular examinations, and ancillary testing, while managing patient expectations and identifying potential complications associated with refractive surgeries.			
COMOP1510.4	Acquire the skills to explain and compare various corneal-based and lenticular-based refractive surgery procedures, such as LASIK, SMILE, and phakic IOL implantation, and understand their indications, techniques, and outcomes			
14. UNIT WISE DETAILS				No. of Units: 06
Unit-I: Refractive Errors				0.5 Hour
Introduction to the refractive error, myopia, hyperopia, astigmatism, presbyopia				

Unit-II: Screening Candidates for Refractive Surgery		0.5 Hour	
Disorders affecting refraction: tear film disorders, corneal disorders, iris and pupil conditions, lens disorders, central nervous system			
Unit-III: Pre and post patient evaluation, expectations and complications		0.5 Hour	
Patient evaluation for refractive procedure, patients' expectations and complications, pre-operative examinations (history taking, ocular examination and ancillary testing)			
Unit-IV: Corneal based Refractive surgery		0.5 Hour	
Radial keratotomy, Arcuate Keratotomy, and Intra stromal corneal rings			
Unit-V: Photoablative procedures		1 Hour	
Photorefractive keratotomy, LASEK, LASIK			
Unit-VI: Procedures in lenticular based Refractive surgery		1 Hour	
Intraocular surgery, phakic IOL, natural lens replacement, Implantable Collamer Lens, SMILE, and IOL used in refractive procedures			
15. Instructions for students a) Before coming to the class, please familiarize yourself with different refractive errors b) Read about the different refractive surgery c) Attendance is mandatory, and all students must maintain at least 75% attendance throughout the course. d) All student must secure at least 50% marks in each evaluation component e) All students must submit an assignment on the refractive surgery.			
16. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
17. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 11		1. Weak 2. Moderate 3. High ✓	
b) SDG: 17		1. Weak 2. Moderate 3. High ✓	
18. Title of Lab Manual (if applicable): Not applicable			
19. Books Recommended: Reference Books: E-Book: Reference websites: - https://www.aao.org/eye-health/treatments/what-is-refractive-surgery#:~:text=Refractive%20surgery%20can%20correct%20refractive,you%20can%20see%20more%20clearly - https://eyewiki.org/Category:Refractive_Management/Intervention			
20. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented:NA			
Participative Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1510.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1510.1
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1510.2
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1510.3
5.	Unit V	MSE, ESE and Continuous Evaluation	COMOP1510.4
6.	Unit VI	MSE, ESE and Continuous Evaluation	COMOP1510.4

Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Practical Content

Sr. No.	Title of the Experiment	Software/Hardware based	Unit Covered	Time Required
1.	Refractive error identification	Hardware	Unit I	0.5 Hour
2.	Screening protocol for the refractive surgery	Software	Unit II	0.5 Hour
3.	Pre-operative exams for refractive surgery	Hardware	Unit III	1 Hour
4.	Interpretation of the reports	Software	Unit IV	1 Hour
5.	Post operative assessment in refractive surgery	Hardware	Unit IV	1 Hour
Value Added Experiments:				

Project (To be done as individual/in group): Case Presentation individually on refractive surgery case.

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1.	Practical (0-0-4)	Regular Practical & Report Writing - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Case Study	Preliminary study	Pre workup and counselling	Post operative procedures
Workshop	Preliminary study	Pre workup and counselling	Post operative procedures
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PSO1	PSO2	PSO3
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COMOP1510.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1510.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1510.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1510.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Practical)

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Refractive error identification	COMOP1510.1	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
2.	P	Screening protocol for the refractive surgery	COMOP1510.1	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
3.	P	Pre-operative exams for refractive surgery	COMOP1510.2	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
4.	P	Interpretation of the reports	COMOP1510.3	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
5.	P	Decision making in refractive surgery	COMOP1510.4	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition
6.	P	Post operative assessment in refractive surgery	COMOP1510.4	Al Lens, Optics, Retinoscopy, and Refractometer, Second Edition (Basic Bookshelf for Eye care Professionals) 2nd Edition, Kindle Edition

Semester II

MOP1706 : OCULAR DISEASES AND DIAGNOSTICS II

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: OCULAR DISEASES AND DIAGNOSTICS II	3. Course Code	4. L-T-P	5. Credits	
	MOP1706	3-0-0	3	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Ocular Disease & diagnostics-I (MOP1703)				
8. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester				
9. Focus: Employability Entrepreneurship Skill Development ☒ Basic Knowledge ☒				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief Unit-I 10 Hours Refresher of posterior segment ocular diseases, diagnosis and therapeutics Unit-II 10 Hours Surgical treatment of posterior segment diseases Posterior segment Diagnostics Unit-III 15 Hours ERG, EOG, VEP, OCT Unit-IV 10 Hours Fundus photography, Neuro-optometric diseases and disorders				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: 45		Tutorials: Nil		Practical's: Nil
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1706.1	Recall posterior segment diseases			
COMOP1706.2	Function various diagnostic tools for posterior segment evaluation			
COMOP1706.3	Assess eye conditions & diseases using various ocular diagnostic tools			

COMOP1706.4	Perform electro-diagnostic procedures and reports of ERG, EOG, VEP.		
COMOP1706.5	Estimate and manage several eye conditions using optometric management strategy		
12. UNIT WISE DETAILS	No. of Units:		
4	10 Hours		
Unit-I Refresher of posterior segment ocular diseases, diagnosis and therapeutics	10 Hours		
Unit-II Surgical treatment of posterior segment diseases Posterior segment Diagnostics	15 Hours		
Unit-III ERG, EOG, VEP, OCT	10 Hours		
Unit-IV Fundus photography, Neuro-optometric diseases and disorders			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. c) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. d) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)		
a) SDG: 3	1. Weak	2. Moderate	3. High ✓
b) SDG: 4	1. Weak	2. Moderate	3. High ✓
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. Clinical Ophthalmology: Jack J Kanski 2. Diagnostics and imaging techniques in Ophthalmology: Amar Agarwal E-Book: NA Reference websites: 1. https://www.imo.es/en/diagnostic-tests/anterior-segmentoct/#:~:text=This%20test%20provides%20an%20objective,in%20cases%20of%20closed%2Dangle 2. https://www.ncbi.nlm.nih.gov/books/NBK585055/			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. https://www.ucl.ac.uk/short-courses/search-courses/masterclass-external-eye-disease			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit 1	MSE, ESE and Continuous Evaluation	COMOP1706.1
2.	Unit 2	MSE, ESE and Continuous Evaluation	COMOP1706.2
3.	Unit 3	MSE, ESE and Continuous Evaluation	COMOP1706.4

4.	Unit 4	MSE, ESE and Continuous Evaluation	COMOP1706.3, COMOP1706.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory (3-0-0)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		End term Exam (ETE) – External	60%	

RUBRIC FOR EVALUATION

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP1706.1	3	1	1		2	3		2	1	2	3	2	2	3
COMOP1706.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1706.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1706.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1706.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	2.6	2.6	2.4	2.8	3	2.4	2.8	2.6	2.8	3	2.8	2.8	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No.	Lecture/Tutorial(L/T)	Topics / Sub- Topics	Course Outcome	Pre-Reading
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1	L	Introduction to posterior segment ocular diseases	COMOP1706.1	Overview of posterior segment anatomy
2	L	Common posterior segment diseases: Diabetic retinopathy, AMD, Retinal detachment	COMOP1706.1	Clinical cases of posterior diseases
3	L	Diagnosis techniques for posterior segment diseases	COMOP1706.1	Imaging modalities overview
4	L	Posterior segment diagnostics: Imaging techniques	COMOP1706.2	Diagnostic tools for posterior segment
5	L	Retina diagnostics: ERG principles and interpretation	COMOP1706.3	Electrophysiology basics
6.	L	Retina diagnostics: EOG and its clinical applications	COMOP1706.3	EOG procedure details
7	L	Retina diagnostics: VEP and its relevance	COMOP1706.3	Visual evoked potential
8	L	OCT principles and its application in retina diagnostics	COMOP1706.3	Cross-sectional retinal imaging basics
9	L	FFA: Technique, analysis, and case applications	COMOP1706.3	Clinical examples of retinal vascular imaging
10	L	Fundus photography: Techniques and applications	COMOP1706.4	Overview of retinal imaging
11	L	Neuro-optometric diseases: Optic neuritis, papilledema	COMOP1706.4	Clinical cases in neuro-ophthalmology
12	L	Clinical implications of posterior segment diagnostics	COMOP1706.5	Advanced diagnostic techniques

MOP1004: BASIC CONTACT LENS

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Course Name:		3. Course Code	4. L-T-P	5. Credits
BASIC CONTACT LENS		MOP1004	2-0-2	3
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective Open Elective VAC		
7. Prerequisite(s), if any (Mention course code and name)				
None				
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☒				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief Unit 1: Introduction to Contact Lenses - History and evolution of contact lenses - Advantages and disadvantages of contact lenses compared to spectacles - Classification of contact lenses (Soft, RGP, Hybrid, Scleral) - Anatomy and physiology of the cornea relevant to contact lens wear Unit 2: Soft Contact Lenses (SCLs) - Types of soft lenses: Daily wear, extended wear, and disposable lenses - Material properties (HEMA, Silicone hydrogel) and oxygen permeability - Fitting assessment: Keratometry, topography, trial lens selection, movement, and centration - Patient education: Insertion, removal, and care regimen - Soft lens complications and management Unit 3: Rigid Gas Permeable (RGP) Contact Lenses - Indications and advantages of RGP lenses - Material properties and lens designs (spherical, aspheric, multifocal) - RGP lens fitting principles: Base curve selection, fluorescein pattern evaluation - RGP adaptation and troubleshooting - Care and maintenance of RGP lenses Unit 4: Toric Contact Lenses for Astigmatism - Indications for toric contact lenses - Types of toric lenses: Soft toric vs. RGP toric - Understanding lens markings, stabilization methods (prism ballast, dynamic stabilization) - Fitting and troubleshooting toric lenses - Managing rotation and vision stability in toric lenses Unit 5: Contact Lens Complications and Management -Ocular responses to contact lenses: Hypoxia, infections, dryness, mechanical issues - Managing contact lens-induced complications - Role of tear film in successful lens wear - Special cases: Pediatric and presbyopic contact lens fitting				

Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)		
Lectures: 30	Tutorials: Nil	Practical's: 30
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:		
COMOP1004.1	Describe the materials, optics, and manufacturing techniques of soft and RGP contact lenses.	
COMOP1004.2	Perform basic soft and RGP contact lens fitting, including initial lens selection and assessment.	
COMOP1004.3	Identify and address common complications related to soft, RGP, and toric contact lens wear.	
COMOP1004.4	Evaluate the advantages and disadvantages of toric lenses for astigmatism correction.	
COMOP1004.5	Educate patients on proper lens care, handling, and maintenance to ensure ocular health.	
12. UNIT WISE DETAILS 5		No. of Units:
Unit 1: Introduction to Contact Lenses - History and evolution of contact lenses - Advantages and disadvantages of contact lenses compared to spectacles - Classification of contact lenses (Soft, RGP, Hybrid, Scleral) - Anatomy and physiology of the cornea relevant to contact lens wear Unit 2: Soft Contact Lenses (SCLs) - Types of soft lenses: Daily wear, extended wear, and disposable lenses - Material properties (HEMA, Silicone hydrogel) and oxygen permeability - Fitting assessment: Keratometry, topography, trial lens selection, movement, and centration - Patient education: Insertion, removal, and care regimen - Soft lens complications and management Unit 3: Rigid Gas Permeable (RGP) Contact Lenses - Indications and advantages of RGP lenses - Material properties and lens designs (spherical, aspheric, multifocal) - RGP lens fitting principles: Base curve selection, fluorescein pattern evaluation - RGP adaptation and troubleshooting - Care and maintenance of RGP lenses Unit 4: Toric Contact Lenses for Astigmatism - Indications for toric contact lenses - Types of toric lenses: Soft toric vs. RGP toric - Understanding lens markings, stabilization methods (prism ballast, dynamic stabilization) - Fitting and troubleshooting toric lenses - Managing rotation and vision stability in toric lenses Unit 5: Contact Lens Complications and Management - Ocular responses to contact lenses: Hypoxia, infections, dryness, mechanical issues - Managing contact lens-induced complications - Role of tear film in successful lens wear - Special cases: Pediatric and presbyopic contact lens fitting		
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.		
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA		
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3		1. Weak 2. Moderate 3. High ✓
b) SDG: 4		1. Weak 2. Moderate ✓ 3. High
16. Title of Lab Manual (if applicable):		

Not applicable			
17. Books Recommended: Reference Books: 1. IACLE modules 2. Contact lenses – Stone and Phillips E-Book: NA Reference websites: 1. https://www.jnjvisioncare.ae/sites/default/files/public/ae/documents/soft_toric_contact_lens_fitting.pdf 2. https://coopervision.com/practitioner/ecp-viewpoints/science-contact-lenses/toric-contact-lenses-part-1-toric-fitting-trends			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1004.1, COMOP1004.2
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1004.3, COMOP1004.4
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1004.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP1004.1	3	1	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1004.2	3	3	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1004.3	3	2	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1004.4	3	2	3	3	3	3	3	2	3	3	3	3	3	3
COMOP1004.5	3		3	3	3	3	3	2	3	3	3	3	3	3
Average	3	1.6	3	3	3	3	3	2	3	3	3	3	3	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	L	History and evolution of contact lenses	COMO1004.1	History of visual correction
2	L	Advantages and disadvantages of contact lenses vs. spectacles	COMOP1004.1	Spectacle vs. CL comparison
3	L	Classification of contact lenses (Soft, RGP, Hybrid, Scleral)	COMOP1004.2	Types of CL
4	L	Anatomy and physiology of the cornea relevant to CL wear	COMOP1004.1	Corneal layers and functions
5	L	Materials, optics, and manufacturing of soft & RGP lenses	COMOP1004.2	HEMA, Silicone hydrogel, RGP materials
6	L	Types of soft lenses: Daily, extended, disposable	COMO1004.2	Soft lens categories
7	P	Keratometry and topography for lens fitting	COMOP1004.2	Keratometry procedure
8	P	Soft CL fitting: Trial lens selection, movement, centration	COMOP1004.2	Fitting parameters

9	P	RGP lens fitting: Base curve, fluorescein pattern eval.	COMOP1004.2	RGP fitting techniques
10	P	Adaptation and troubleshooting for soft & RGP lenses	COMOP1004.2	CL troubleshooting guide
11	L	Indications and types of toric lenses: Soft & RGP	COMOP1004.4	Astigmatism correction
12	L	Stabilization methods: Prism ballast, dynamic stabilization	COMOP1004.4	Toric lens stability methods
13	P	Toric lens fitting & evaluating rotation and centration	COMOP104.4	Fitting toric CLs
14	P	Managing toric lens instability & vision issues	COMOP1004.4	Troubleshooting rotation
15	L	Ocular responses: Hypoxia, infections, mechanical issues	COMOP1004.3	Contact lens complications
16	T	Managing contact lens complications (SCL, RGP, Toric)	COMOP1004.3	Clinical complication management
17	T	Role of tear film in successful lens wear	COMOP1004.3	Tear film physiology
18	L	Patient education: Insertion, removal, care regimen	COMOP1004.5	CL hygiene principles
19	P	Demonstration and practice: CL care and maintenance	COMOP1004.5	Lens cleaning systems
20	L	Special cases: Pediatric & presbyopic contact lens fitting	COMOP1004.5	Special populations in CL fitting

MOP1002 : BINOCULAR VISION

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2.	Course Name: BINOCULAR VISION		3. Course Code	4. L-T-P
			MOP1002	2-0-2
5. Credits		3		
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective Open Elective VAC		
7. Prerequisite(s), if any (Mention course code and name) None				
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☒				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief Unit-I 10 Hours Refractive Development: Early Refractive Development, Visually Guided control of Refractive State: Animal Studies, Infant Accommodation and Convergence, Oculomotor Function: Conjugate Eye Movements of Infants, Development of the Vestibuloocular and Optokinetic reflexes Unit-II 10 Hours Spatial and Chromatic Vision: Front-end Limitations to Infant Spatial vision: Examination of two analyses, Development of the Human Visual Field, Development of Scotopic Retinal Sensitivity, Infant Color vision, Orientation and Motion selective Mechanisms in Infants, Intrinsic Noise and Infant performance Unit-III 10 Hours Binocular Vision: Development of interocular vision in Infants, Stereopsis in Infants and its developmental relation to visual acuity, Sensorimotor Adaptation and Development of the Horopter, Two stages in the development of Binocular Vision and Eye Alignment Unit-IV 15 Hours Retinal and cortical Development, Abnormal Visual Development, What next in Infant Research Clinical Applications: Assessment of Child Vision and Refractive Error, Refractive Routines in the Examination of Children, Cycloplegic Refraction, Color Vision Assessment in Children, Dispensing for the Child patient, Pediatric Contact Lens Practice, Dyslexia and Optometry Management, Electrodiagnostic Needs of Multiple Handicapped Children, Management Guidelines – Amblyopia, Contant Strabismus, Management Guidelines – Amblyopia, Accommodation and Vergence anomalies, Nystagmus, Common genetic problems in Paediatric optometry, Pediatric Ocular Diseases, Ocular Trauma in Children, Myopia control, Clinical uses of prism				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: 45		Tutorials: Nil		Practical's: Nil
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1002.1	Understand and assess different refractive conditions of pediatric patients			
COMOP1002.2	Demonstrate the different laws and principles of Binocular vision			
COMOP1002.3	Identify various binocular vision anomalies			

COMOP1002.4	Perform tests to estimate the Binocular vision functions		
COMOP1002.5	Formulate and interpret the results of various binocular vision assessment tests		
12. UNIT WISE DETAILS		No. of Units: 4	
Unit-I		10	
Hours Refractive Development: Early Refractive Development, Visually Guided control of Refractive State: Animal Studies, Infant Accommodation and Convergence, Oculomotor Function: Conjugate Eye Movements of Infants, Development of the Vestibuloocular and Optokinetic reflexes			
Unit-II		10	
Hours Spatial and Chromatic Vision: Front-end Limitations to Infant Spatial vision: Examination of two analyses, Development of the Human Visual Field, Development of Scotopic Retinal Sensitivity, Infant Color vision, Orientation and Motion selective Mechanisms in Infants, Intrinsic Noise and Infant performance			
Unit-III		10	
Hours Binocular Vision: Development of inter-ocular vision in Infants, Stereopsis in Infants and its developmental relation to visual acuity, Sensorimotor Adaptation and Development of the Horopter, Two stages in the development of Binocular Vision and Eye Alignment			
Unit-IV		15	
Hours Retinal and cortical Development, Abnormal Visual Development, What next in Infant Research Clinical Applications: Assessment of Child Vision and Refractive Error, Refractive Routines in the Examination of Children, Cycloplegic Refraction, Color Vision Assessment in Children, Dispensing for the Child patient, Pediatric Contact Lens Practice, Dyslexia and Optometry Management, Electrodiagnostic Needs of Multiple Handicapped Children, Management Guidelines – Amblyopia, Contant Strabismus, Management Guidelines – Amblyopia, Accommodation and Vergence anomalies, Nystagmus, Common genetic problems in Paediatric optometry, Pediatric Ocular Diseases, Ocular Trauma in Children, Myopia control, Clinical uses of prism			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High	✓
b) SDG: 4		1. Weak 2. Moderate 3.High	✓
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. Clinical management of binocular vision Mitchell Scheiman and Bruce Wick 2. Applied concepts in vision therapy: Leonard Press 3. Pediatric optometry: Jerome K Rosner E-Book: NA Reference websites: https://journals.lww.com/kjop/fulltext/2019/31010/refraction_and_glass_prescription_in_pediatric_age.18.aspx			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1002.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1002.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1002.1
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1002.3, COMOP1002.4,

			COMOP1002.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP1002.1	3		3		2	2		2		2	3	1	1	2
COMOP1002.2	3		3		2	2		2		2	3	1	1	2
COMOP1002.3	3	3	3	2	3	3	3	3	3	3	3	3	3	3
COMOP1002.4	3	3	3	2	3	3	3	3	3	3	3	3	3	3
COMOP1002.5	3	3	3	2	3	3	3	3	3	3	3	3	3	3
Average	3	1.8	3	1.2	2.6	2.6	1.8	2.6	1.8	2.6	3	2.2	2.2	2.6

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	L	Development of Binocular Vision,	COMOP1001.1	<i>Clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
2	P	Cases on Binocular Anomalies	COMOP1002.2	Case history examples
3	L	Amblyopia	COMOP1002.2	<i>Clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
4	P	Cases Presentation	COMOP1002.2	Case History
5	L	Convergence and Accommodation Anomalies	COMOP1002.3	<i>Clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
6	L	ARC & Suppression	COMOP1002.3	<i>Clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
7	P	Diagnostic cases with hands on	COMOP1002.2	Hands-on
8	L	Dyslexia and Optometry Management Needs of Multiple/Handicapped Children	COMOP1002.3	<i>clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
9	L	Strabismus	COMOP1002.3	Cases
10	P	Suppression	COMOP1002.4	<i>clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.
11	P	Presentation on cases	COMOP1002.1	Hospital Cases
12	P	Binocular vision Assessment on Software	COMOP1002.1	<i>clinical Management of Binocular Vision</i> by Mitchell Scheiman & Bruce Wick.

MOP1003: LOW VISION AND REHABILITATION-i

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences				
2. Course Name: LOW VISION AND REHABILITATION-i	3. Course Code	4. L-T-P	5. Credits		
	MOP17003	2-0-2	3		
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC				
7. Prerequisite(s), if any (Mention course code and name) None					
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester					
9. Focus: Employability ☒ Entrepreneurship Skill Development ☒ Basic Knowledge ☒					
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies			
Syllabus in Brief Unit-I Hours Visual Disorders – Medical Perspective The Epidemiology of Vision Impairment Vision Impairment in the pediatric population Ocular Diseases : Age – Related Cataract, Glaucoma ARMD Diabetic retinopathy Corneal Disorders Ocular Trauma Sensory Neuro-ophthalmology and Vision Impairment Refractive Disorders					6
Unit-II Hours Visual Disorders – The Functional Perspective Low Vision and Psychophysics Visual Functioning in Pediatric Populations with Low Vision Perceptual correlates of Optical Disorders Functional aspects of Neural Visual Disorders of the eye and Brain Visual Disorders and Performance of specific Tasks requiring vision Visual Disorders – The Psychosocial Perspective Developmental perspectives – Youth Vision Impairment and Cognition Spatial orientation and Mobility of people with vision impairments Social skills Issues in vision impairment Communication and language: Issues and concerns Developmental perspectives on Aging and vision loss Vision and cognitive Functioning in old age					8
Unit-III Hours					8

Interactions of Vision Impairment with other Disabilities and sensory Impairments. Children with Multiple Impairments Dual Vision and Hearing Impairment Diabetes Mellitus and Vision Impairment Vision Problems associated with Multiple Sclerosis Vision Impairment related to Acquired Brain Injury Vision and Dementia Low Vision and HIV infection The Environment and Vision Impairment: Towards Universal Design Indian Disabilities act Children’s Environments Environments of Older people Outdoor environments Lighting to enhance visual capabilities Signage and way finding Accessible Environments through Technology		
Unit-IV		8 Hours
Vision Rehabilitation: In Western Countries In Asia Personnel preparation in Vision Rehabilitation Psychological and social factors in visual Adaptation and Rehabilitation The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Children and Youth The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Adults and Older adults Social support and adjustment to vision Impairment across the life span The person – Environment perspective of vision impairment Associated Depression, Disability and rehabilitation Methodological strategies and issues in social research on vision Impairment and Rehabilitation		
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)		
Lectures: 30	Tutorials: Nil	Practical’s: 30
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:		
COMOP1003.1	Recall ocular diseases and identify age related changes in eyes	
COMOP1003.2	Explain the causes of low vision.	
COMOP1003.3	Assess a patient with low vision.	
COMOP1003.4	Propose and counsel low vision devices based on the conditions with correct demonstration.	
COMOP1003.5	Improve quality of life utilizing residual vision	
12. UNIT WISE DETAILS	No. of Units: 4	
Unit-I	6	
Hours		
Visual Disorders – Medical Perspective The Epidemiology of Vision Impairment Vision Impairment in the pediatric population Ocular Diseases : Age – Related Cataract, Glaucoma ARMD Diabetic retinopathy Corneal Disorders Ocular Trauma Sensory Neuro-ophthalmology and Vision Impairment Refractive Disorders		
Unit-II	8	
Hours		
Visual Disorders – The Functional Perspective Low Vision and Psychophysics Visual Functioning in Pediatric Populations with Low Vision Perceptual correlates of Optical Disorders Functional aspects of Neural Visual Disorders of the eye and Brain		

Visual Disorders and Performance of specific Tasks requiring vision Visual Disorders – The Psychosocial Perspective Developmental perspectives – Youth Vision Impairment and Cognition Spatial orientation and Mobility of people with vision impairments Social skills Issues in vision impairment Communication and language: Issues and concerns Developmental perspectives on Aging and vision loss Vision and cognitive Functioning in old age	
Unit-III 8 Hours Interactions of Vision Impairment with other Disabilities and sensory Impairments. Children with Multiple Impairments Dual Vision and Hearing Impairment Diabetes Mellitus and Vision Impairment Vision Problems associated with Multiple Sclerosis Vision Impairment related to Acquired Brain Injury Vision and Dementia Low Vision and HIV infection The Environment and Vision Impairment: Towards Universal Design Indian Disabilities act Children's Environments Environments of Older people Outdoor environments Lighting to enhance visual capabilities Signage and way finding Accessible Environments through Technology	
Unit-IV 8 Hours Vision Rehabilitation: In Western Countries In Asia Personnel preparation in Vision Rehabilitation Psychological and social factors in visual Adaptation and Rehabilitation The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Children and Youth The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Adults and Older adults Social support and adjustment to vision Impairment across the life span The person – Environment perspective of vision impairment Associated Depression, Disability and rehabilitation Methodological strategies and issues in social research on vision Impairment and Rehabilitation	
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.	
14. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA	
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3	1. Weak 2. Moderate 3. High ✓
b) SDG: 17	1. Weak 2. Moderate 3. High ✓
16. Title of Lab Manual (if applicable): Not applicable	
17. Books Recommended: Reference Books:	

1.	The light house handbook on vision impairment and Vision rehabilitation: Barbara Silverstone, Mary Ann Lang, Bruce Rosenthal, Faye.		
2.	Christine Dickinson: Low Vision: Principles and Practice Low vision care, 4th edition, Butterworth-Heinemann, 1998		
3.	Sarika G, Sailaja MVSE Vaithilingam: practice of Low vision –A guide book, Medical Research Foundation, 2015.		
E-Book:			
1.	Richard L. Brilliant: Essentials of Low Vision Practice, Butterworth-Heinemann, 1999		
2.	Helen Farral: optometric Management of Visual Handicap, Blackwell Scientific publications, 1991		
3.	A J Jackson, J S Wolffsohn: Low Vision Manual, Butterworth Heinemann, 2007		
Reference websites: NA			
1.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1705707/		
2.	https://www.eophtha.com/posts/low-vision-assessment		
18. E-Learning Resources: NA			
NPTEL: NA			
Animated Lab Videos: NA			
MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1003.1
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP1003.1, COMOP1003.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP1003.3, COMOP1003.4
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP1003.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner

Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP1003.1	2				2	1		2	1	2	3	2	2	2
COMOP1003.2	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP1003.3	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP1003.4	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP1003.5	3	3	3	2	3	3	3	3	3	3	3	3	3	3
Average	2.8	2.4	2.4	1	2.8	2.6	2.4	2.8	2.6	2.8	3	2.8	2.8	2.8

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No.	Lecture/Tutorial (L/P)	Topics / Sub-Topics	Course Outcome	Pre-Reading
1.	T	Revision and Clinical Assessment of Low Vision Patient: Purpose of low vision assessment and steps involved in low vision assessment, Identifying needs and Functional evaluation and mobility	COMOP1003.1	Chapter on Low Vision Assessment from
2.	P	Clinical Assessment of Low Vision Patient	COMOP1003.1	Research article on clinical assessment techniques
3.	T	Revision and Clinical Assessment of Low Vision Patient: Identifying needs and Functional evaluation and mobility	COMOP1003.2	Case studies on functional vision assessment

4.	T	Revision and Clinical Assessment of Low Vision Patient: Diseases commonly causing low vision	COMOP1003.2	Review paper on common low vision conditions
5.	T	Magnification and Low Vision Devices: Calculation of magnification	COMOP1003.3	Basic optics and magnification principles
6.	P	Magnification calculation of Telescope	COMOP1003.3	Manual on telescope optics
7.	P	Magnification calculation of Magnifiers	COMOP1003.3	Guidelines on using magnifiers in low vision
8.	P	Magnification and Low Vision Devices: Optical, non-optical, adaptive, and electronic devices: Types, advantages, disadvantages	COMOP1003.3	Comparison table of low vision devices
9.	P	Practical hands on session for non-optical devices	COMOP1003.3	Instructional guide for non-optical devices
10.	P	Magnification and Low Vision Devices: Functional assessment of low vision for activities of daily living	COMOP1003.3	Studies on functional vision and daily activities
11.	T	Rehabilitation of the Visually Impaired: Disability and visual impairment: Psycho-social perspective, rehabilitation services	COMOP1003.4	Book chapter on visual impairment and rehabilitation
12.	T	Rehabilitation of the Visually Impaired: Special case discussions on rehabilitation of children and youth with vision impairment	COMOP1003.4	Case reports on pediatric vision rehabilitation
13.	P & T	Rehabilitation of the Visually Impaired: Rehabilitation of working-age adults with vision impairment and Rehabilitation of older adults with vision impairment	COMOP1003.4	Research paper on employment challenges in visually impaired individuals
14.	P	Rehabilitation of the Visually Impaired: Functional consequences of vision impairment	COMOP1003.4	Review of functional consequences in low vision patients
15.	P&T	Rehabilitation of the Visually Impaired: Psychosocial assessment of adults with vision impairment	COMOP1003.4	Guidelines for psychosocial assessment of visually impaired adults

16.	P&T	Rehabilitation of the Visually Impaired: Vision and reading: Normal vs. low vision	COMOP1003.5	Research on reading performance in low vision individuals
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MOP1511: RESEARCH PROJECT-II

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name:	RESEARCH PROJECT-II	3. Course Code	4. L-T-P	5. Credits
		MOP1511	0-0-12	6
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Research Project (MOP1508)				
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester ☒				
9. Focus: Employability Entrepreneurship ☒ Skill Development ☒ Basic Knowledge				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☒ Participative Learning ☒ Problem solving methodologies		
Syllabus in Brief 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 in front 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.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 144
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1511.1	Plan detailed Research Proposal			
COMOP1511.2	Summarize critical literature search & its interpretation			
COMOP1511.3	Apply various research methods & designs			
COMOP1511.4	Demonstrate clinical and research data collection			
COMOP1511.5	Analyze the process of statistical analysis and construct a dissertation			
COMOP1511.6	Propose final report based on research findings			
12. UNIT WISE DETAILS		No. of Units: NA		
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 in front of the experts before going ahead with data collection. In institute which has an Institute research board and ethics committee student can be encouraged to present the proposal in it.				
13. Instructions for students				
a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.				
14. Multi-Disciplinary Approach				

(Please mention whether this course is multidisciplinary or not)

Yes No ✓

Describe (if yes):

NA

15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3	1. Weak 2. Moderate 3. High ✓
b) SDG: 17	1. Weak ✓ 2. Moderate 3. High

16. Title of Lab Manual (if applicable):
Not applicable

17. Books Recommended:
Reference Books: How to write a Thesis (Kothari)
E-Book: Thesis writing: The T H E S I S approach (English edition) ebook : Mahajan, Rajiv, Singh, tejinder: Amazon.nl: Kindle Store (no date) Thesis Writing: The T H E S I S Approach (English Edition) eBook : Mahajan, Rajiv, Singh, Tejinder: Amazon.nl: Kindle Store. Available at: <https://www.amazon.nl/Thesis-Writing-Approach-Rajiv-Mahajan-ebook/dp/B0BDLFNRX7> (Accessed: 31 May 2024).
Reference websites: <https://canterbury.libguides.com/writingup/thesiswritingbooks>
<https://link.springer.com/book/10.1007/978-3-319-61854-8>

18. E-Learning Resources: NA
NPTEL: NA
Animated Lab Videos: NA
MOOC Supplemented: NA

Experiential Learning Component

Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Research Progress	MSE, ESE and Continuous Evaluation	COMOP1511.1, COMOP1511.2, COMOP1511.3, COMOP1511.4, COMOP1511.5, COMOP1511.6

Activities for Differential learning Needs

Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-12)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO 7	PO 8	PO 9	P O1 0	PO 11	PSO 1	PSO 2	PSO 3
COMOP1511.1			1	3			3		3	3	3			3
COMOP1511.2			1	3			3		3	3	3			3
COMOP1511.3	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP1511.4	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP1511.5			1	3			3		3	3	3			3
COMOP1511.6			1	3			3		3	3	3			3
Average	1	0.66	1	3	1	1	3	0.66	3	3	3	1	1	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No	Practical (P)	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	P	Plan detailed Research Proposal	COMOP1511.1	Research methodology textbook, Guidelines for writing research proposals
2.	P	Summarize critical literature search & its interpretation	COMOP1511.2	Systematic review articles, Literature review techniques
3.	P	Apply various research methods & designs	COMOP1511.3	Research design and methodology resources, Case studies on research methods
4.	P	Demonstrate clinical and research data collection	COMOP1511.4	Data collection protocols, Ethics in research
5.	P	Analyze the process of statistical analysis and construct a dissertation	COMOP1511.5	Statistical analysis guides, Dissertation writing guidelines

6.	P	Propose final report based on research findings	COMOP1511.6	Research report writing manuals, Examples of published research reports
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MOP1512: CLINICS - II

1. Department/ School:	Optometry / School of Medical and Allied Sciences			
2. Course Name:	CLINICS-II	3. Course Code	4. L-T-P	5. Credits
		MOP1512	0-0-6	3
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐			
7. Prerequisite(s), if any (Mention course code and name) Clinic-I (General) (MOP1509)				
8. Frequency of offering (check one): Odd ☐ Even ☒ Any Semester ☐ Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☒ Participative Learning ☒ Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to examine the eye and understand all eye procedures with clinical management. - 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. - 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.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 192
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1512.1	Recall and diagnose various eye conditions and diseases			
COMOP1512.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP1512.3	Perform comprehensive eye test			
COMOP1512.4	Plan and manage several eye conditions using optometric management strategy			
COMOP1512.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS	No. of Units: 01			
- The objective of clinics in this semester is to be able to examine the eye and understand all eye procedures with clinical management. - An approximate 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. - 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.																			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.																			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓																			
Describe (if yes): NA																			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)																	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓																	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓																	
16. Title of Lab Manual (if applicable): Not applicable																			
17. Books Recommended: Reference Books: 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 1. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 2. https://eyewiki.aao.org/Slit_Lamp_Examination																			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16																			
Experiential Learning Component <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sr. No.</th> <th style="width: 40%;">Topic</th> <th style="width: 30%;">Submissions/Assessment</th> <th style="width: 20%;">COs covered</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Logbook</td> <td>MSE, ESE and Continuous Evaluation</td> <td>COMOP1512.1, COMOP1512.2, COMOP1512.3, COMOP1512.4, COMOP1512.5</td> </tr> </tbody> </table>				Sr. No.	Topic	Submissions/Assessment	COs covered	1.	Logbook	MSE, ESE and Continuous Evaluation	COMOP1512.1, COMOP1512.2, COMOP1512.3, COMOP1512.4, COMOP1512.5								
Sr. No.	Topic	Submissions/Assessment	COs covered																
1.	Logbook	MSE, ESE and Continuous Evaluation	COMOP1512.1, COMOP1512.2, COMOP1512.3, COMOP1512.4, COMOP1512.5																
Activities for Differential learning Needs <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sr. No.</th> <th style="width: 20%;">Learning Level</th> <th style="width: 40%;">Activities</th> <th style="width: 30%;">Assessment</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Slow learners</td> <td>Extra classes, assignment, one to one interaction, guest lectures</td> <td>Assignment, MSE, Test, viva</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Intermediate learners</td> <td>Skill training, Journal club activities, guest lectures</td> <td>Test, feedback, viva</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Advanced Learners</td> <td>VAC courses, skill training</td> <td>Presentation, viva, feedbacks</td> </tr> </tbody> </table>				Sr. No.	Learning Level	Activities	Assessment	1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva	2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva	3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks
Sr. No.	Learning Level	Activities	Assessment																
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva																
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva																
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks																

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component

	6)	End Semester Practical/Case Report Including Viva-Voce - External	50%	
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RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
COMOP1512.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1512.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1512.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1512.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1512.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Ocular Examination: Slit lamp Biomicroscopy, Tonometry and RAPD	COMOP1512.1	Slit lamp examination guidelines, Tonometry techniques, RAPD assessment methods
2.	P	Ocular Examination: examine for abnormalities of the cornea, contact and non-contact tonometer, abnormalities in the anterior chamber, abnormalities in the crystalline lens	COMOP1512.2	Corneal pathology reference, Contact vs. non-contact tonometry comparison, Anterior segment evaluation
3.	P	Contact Lens: history taking, preliminary examinations, pre fitting considerations and dispensing.	COMOP1512.3	Contact lens fitting guide, Patient history-taking techniques
4.	P	RGP: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1512.3	RGP lens fitting principles, Case studies on RGP lens dispensing

5.	P	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1512.3	Scleral lens fitting protocols, Advances in scleral lens technology
6.	P	Orthokeratology: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1512.3	Orthokeratology fitting guidelines, Myopia control strategies
7.	P	Visual Function & Ametropia: visual function tests and their appropriate techniques	COMOP1512.3	Visual function testing manual, Clinical techniques for ametropia assessment
8.	P	Visual Function & Ametropia: Ametropia and its quantification	COMOP1512.4	Refraction techniques, Optical correction of ametropia
9.	P	Ocular Abnormalities: structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease	COMOP1512.4	Ophthalmic history-taking guide, Systemic disease and ocular manifestations
10.	P	Ocular Abnormalities: visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms, appropriate management plan and urgent referrals	COMOP1512.4	Ocular disease diagnostic manual, Referral guidelines for ocular emergencies
11	P	Binocular Vision: appropriate binocular history taking, binocular vision assessment and diagnosis.	COMOP1512.5	Binocular vision testing protocols, Common binocular vision disorders and management

MOP1513: SPECIALTY CLINICS-I

1. Department/ School:		Optometry / School of Medical and Allied Sciences		
2. Course Name: SPECIALTY CLINICS-I		3. Course Code	4. L-T-P	5. Credits
		MOP1513	0-0-8	4
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐		
7. Prerequisite(s), if any (Mention course code and name) None				
8. Frequency of offering (check one): Odd ☐ Even ☒ Any Semester ☐ Both Semester ☐				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☒ Participative Learning ☒ Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to examine the eye and understand all eye procedures with clinical management. - 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. - 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.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 192
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP1513.1	Recall and diagnose various eye conditions and diseases			
COMOP1513.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP1513.3	Perform comprehensive eye test			
COMOP1513.4	Plan and manage several eye conditions using optometric management strategy			
COMOP1513.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS		No. of Units: 01		
- The objective of clinics in this semester is to be able to examine the eye and understand all eye procedures with clinical management. - 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. - 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.				

13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.				
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ☒				
Describe (if yes): NA				
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)		
a) SDG: 3		1. Weak 2. Moderate 3. High ☒		
b) SDG: 4		1. Weak 2. Moderate 3. High ☒		
16. Title of Lab Manual (if applicable): Not applicable				
17. Books Recommended: Reference Books: 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 1. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 2. https://eyewiki.aao.org/Slit_Lamp_Examination				
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16				
Experiential Learning Component				
Sr. No.	Topic	Submissions/Assessment	COs covered	
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP1513.1, COMOP1513.2, COMOP1513.3, COMOP1513.4, COMOP1513.5	
Activities for Differential learning Needs				
Sr. No.	Learning Level	Activities	Assessment	
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva	
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva	
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks	
Evaluation Scheme				
S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component

	8)	End Semester Practical/Case Report Including Viva-Voce - External	50%	
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RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
COMOP1513.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1513.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1513.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1513.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP1513.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Ocular Examination: Slit lamp Biomicroscopy, Tonometry and RAPD	COMOP1513.1	Slit lamp examination guidelines, Tonometry techniques, RAPD assessment methods
2.	P	Ocular Examination: examine for abnormalities of the cornea, contact and non-contact tonometer, abnormalities in the anterior chamber, abnormalities in the crystalline lens	COMOP1513.2	Corneal pathology reference, Contact vs. non-contact tonometry comparison, Anterior segment evaluation
3.	P	Contact Lens: history taking, preliminary examinations, pre fitting considerations and dispensing.	COMOP1513.3	Contact lens fitting guide, Patient history-taking techniques
4.	P	RGP: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1513.3	RGP lens fitting principles, Case studies on RGP lens dispensing

5.	P	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1513.3	Scleral lens fitting protocols, Advances in scleral lens technology
6.	P	Orthokeratology: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP1513.3	Orthokeratology fitting guidelines, Myopia control strategies
7.	P	Visual Function & Ametropia: visual function tests and their appropriate techniques	COMOP1513.3	Visual function testing manual, Clinical techniques for ametropia assessment
8.	P	Visual Function & Ametropia: Ametropia and its quantification	COMOP1513.4	Refraction techniques, Optical correction of ametropia
9.	P	Ocular Abnormalities: structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease	COMOP1513.4	Ophthalmic history-taking guide, Systemic disease and ocular manifestations
10.	P	Ocular Abnormalities: visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms, appropriate management plan and urgent referrals	COMOP1513.4	Ocular disease diagnostic manual, Referral guidelines for ocular emergencies
11	P	Binocular Vision: appropriate binocular history taking, binocular vision assessment and diagnosis.	COMOP1513.5	Binocular vision testing protocols, Common binocular vision disorders and management

SEMESTER III

MOP2103: ADVANCED CONTACT LENS II

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: ADVANCED CONTACT LENS-II	3. Course Code	4. L-T-P	5. Credits	
	MOP2103	2-0-2	3	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐			
7. Prerequisite(s), if any (Mention course code and name) Advanced Contact Lens I (MOP1001)				
8. Frequency of offering (check one): Odd ☒ Even ☐ Any Semester ☐ Both Semester ☐				
9. Focus: Employability ☒ Entrepreneurship ☐ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief Unit-I 10 Hours Anatomy and Physiology of the Cornea and related Structures, Contact Lens Materials, Microbiology, Lens Care and Maintenance, Tears and contact lenses, Optics and Lens Design Unit-II 10 Hours Clinical Instrumentation in contact lens practice, Rigid Gas Permeable corneal lens fitting, Soft contact lens fitting, Toric Contact lens fitting Unit-III 10 Hours Lens care regimen, Contact lens standards, Lens checking : Soft and Rigid, Contact lens complications, Special types of Contact lenses – diagnosis, surgery, protective, therapeutic, sports, partially sighted				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: 30		Tutorials: Nil		Practical's: 30
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2101.1	Explain the basics of contact lenses			
COMOP2101.2	Apply the theory knowledge about the properties of contact lenses			
COMOP2101.3	Classify the right choice of lens and finalize the CL design for various kinds of patients			
COMOP2101.4	Identify various types of fitting			
COMOP2701.5	Identify and manage the adverse effects of contact lens			

12. UNIT WISE DETAILS		No. of Units: 03	
Unit-I		10	
Hours Anatomy and Physiology of the Cornea and related Structures, Contact Lens Materials, Microbiology, Lens Care and Maintenance, Tears and contact lenses, Optics and Lens Design			
Unit-II		10	
Hours Clinical Instrumentation in contact lens practice, Rigid Gas Permeable corneal lens fitting, Soft contact lens fitting, Toric Contact lens fitting			
Unit-III		10	
Hours Lens care regimen, Contact lens standards, Lens checking : Soft and Rigid, Contact lens complications, Special types of Contact lenses – diagnosis, surgery, protective, therapeutic, sports, partially sighted			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not)			
Yes No ✓			
Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High	✓
b) SDG: 4		1. Weak 2. Moderate 3. High	✓
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. IACLE Modules 2. Contact lenses – Stone and Philips E-Book: NA Reference websites: NA 1. https://www.jnjvisioncare.ae/sites/default/files/public/ae/documents/soft_toric_contact_lens_fitting.pdf 2. https://coopervision.com/practitioner/ecp-viewpoints/science-contact-lenses/toric-contact-lenses-part-1-toric-fitting-trends			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2103.1, COMOP2103.2
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP2103.3, COMOP2103.4
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP2103.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva

2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:**(At least 5 Criteria)**

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2103.1	3	1	3	3	3	3	3	2	3	3	3	3	3	3
COMOP2103.2	3	3	3	3	3	3	3	2	3	3	3	3	3	3
COMOP2103.3	3	2	3	3	3	3	3	2	3	3	3	3	3	3
COMOP2103.4	3	2	3	3	3	3	3	2	3	3	3	3	3	3
COMOP2103.5	3		3	3	3	3	3	2	3	3	3	3	3	3
	3	1.6	3	3	3	3	3	2	3	3	3	3	3	3

Level of Mapping/correlation

- 3- Indicates Highest Correlation
 2-Indicates Moderate Correlation
 1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	L	Basic and advanced contact lens designs	COMOP2103.1	Contact lens basics
2	L	Ocular pathologies that require contact lens as management	COMOP2103.2	Anterior ocular pathologies
3	P	Pre diagnostic screening for contact lenses	COMOP2103.3	Refraction and binocular assessments
4	P	Quantitative tear film analysis	COMOP2103.3	Tear film tests
4	T	Qualitative tear film analysis	COMOP2103.3	Tear film tests
5	P	Fitting assessment and troubleshooting	COMOP2103.4	RGP lens static and dynamic fitting
6	T	Corneoscleral lens fitting	COMOP2103.4	Fitting philosophies
7	P	Corneo scleral lens fitting	COMOP2103.4	Fitting philosophies
8	T	Scleral lens design	COMOP2103.4	Corneo scleral lens designs
9	P	Scleral lens fitting	COMOP2103.4	Scleral lens design
10	T	Complications with specialty contact lenses	COMOP2103.5	Contact lens complications
11	P	Case studies on complications and troubleshooting	COMOP2103.5	Contact lens complications
12	T	Practice management	COMOP2103.5	Overview of setting up a specialty contact lens practice

MOP2102: LOW VISION CARE AND REHABILITATION-II

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: LOW VISION CARE AND REHABILITATION-II	3. Course Code	4. L-T-P	5. Credits	
	MOP2102	2-0-2	3	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐			
7. Prerequisite(s), if any (Mention course code and name) Low Vision & Geriatric Optometry (MOP1709)				
8. Frequency of offering (check one): Odd ☒ Even ☐ Any Semester ☐ Both Semester ☐				
9. Focus: Employability ☒ Entrepreneurship ☐ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief				
Unit-I Hours 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				8
Unit-II Hours Vision evaluation of Infants Educational assessment of visual function in Infants and Children Functional Evaluation of the Adult Functional orientation and Mobility				8
Unit-III Hours Functional Assessment of Low Vision for Activities of Daily living Psycho-social assessment of adults with vision impairment Assistive Devices and Technology for Low Vision Assistive Devices and Technology for the Blind				8
Unit-IV Hours Vision and Reading - Normal Vs Low Vision Clinical Implications of color vision Deficiencies				6
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: 30		Tutorials: Nil		Practical's: 30
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				

COMOP2102.1	Explain the causes of low vision.
COMOP2102.2	Assess a patient with low vision.
COMOP2102.3	Propose and counsel on low vision devices based on the condition, with correct demonstration.
COMOP2102.4	Rehabilitate visually impaired patients of different age groups in various working conditions.
COMOP2102.5	Optimize the use of residual vision in visually impaired patients to perform daily tasks.
Unit-I 8	
Hours	
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	
Unit-II 8	
Hours	
Vision evaluation of Infants	
Educational assessment of visual function in Infants and Children	
Functional Evaluation of the Adult	
Functional orientation and Mobility	
Unit-III 8	
Hours	
Functional Assessment of Low Vision for Activities of Daily living	
Psychosocial assessment of adults with vision impairment	
Assistive Devices and Technology for Low Vision	
Assistive Devices and Technology for Blind	
Unit-IV 6	
Hours	
Vision and Reading - Normal Vs Low Vision	
Clinical Implications of color vision Deficiencies	
12. Instructions for students	
a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts.	
b) Read about the interpretation approach of different epidemiological data and community eye care indicators.	
d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course.	
e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.	
13. Multi-Disciplinary Approach	
(Please mentioned whether this course is multidisciplinary or not)	
Yes	No ✓
Describe (if yes):	
NA	
14. SDG Number	SDG level of correlation
(Mention SDGs number out of 17 SDGs for which this course is mapping)	(Mention the level of correlation for each SDG)
a) SDG: 3	1. Weak 2. Moderate 3. High ✓
b) SDG: 17	1. Weak 2. Moderate 3. High ✓
15. Title of Lab Manual (if applicable):	
Not applicable	
16. Books Recommended:	
Reference Books:	
1. The light house handbook on vision impairment and Vision rehabilitation: Barbara Silverstone, Mary Ann Lang, Bruce Rosenthal, Faye.	
2. Christine Dickinson: Low Vision: Principles and Practice Low vision care, 4th edition, Butterworth-Heinemann, 1998	
3. Sarika G, Sailaja MVSE Vaithilingam: practice of Low vision –A guide book, Medical Research Foundation, 2015.	
E-Book:	
1. Richard L. Brilliance: Essentials of Low Vision Practice, Butterworth-Heinemann, 1999	
2. Helen Farral: optometric Management of Visual Handicap, Blackwell Scientific publications, 1991	

3. A J Jackson, J S Wolffsohn: Low Vision Manual, Butterworth Heinemann, 2007

Reference websites: NA

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1705707/>
2. <https://www.eophtha.com/posts/low-vision-assessment>

17. E-Learning Resources: NA
NPTEL: NA
Animated Lab Videos: NA
MOOC Supplemented: NA

Experiential Learning Component

Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2102.3, COMOP2102.4
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP2102.2
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP2102.5
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP2102.1

Activities for Differential learning Needs

Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2102.1	2				2	1		2	1	2	3	2	2	2
COMOP2102.2	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP2102.3	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP2102.4	3	3	3	1	3	3	3	3	3	3	3	3	3	3
COMOP2102.5	3	3	3	2	3	3	3	3	3	3	3	3	3	3
Average	2.8	2.4	2.4	1	2.8	2.6	2.4	2.8	2.6	2.8	3	2.8	2.8	2.8

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	L	Rehabilitation of children and youth with vision impairment	COMOP2102.4	Understanding childhood blindness
2	P	Case study: Creating rehabilitation plans for children	COMOP2102.4	Case history examples
3	L	Rehabilitation of working-age adults	COMMOP2102.2	Vocational challenges overview
4	P	Mock counseling for working-age adults	COMOP2102.4	Counseling techniques
5	L	Vision evaluation of infants	COMOP2102.1	Visual assessment basics
6	L	Functional orientation and mobility	COMOP2102.3	Orientation and mobility tools
7	L	Functional assessment of low vision	COMOP2102.3	Importance of ADLs in vision rehab
8	P	Training on magnifiers and telescopes	COMOP2102.3	Optical device manuals

9	L	Assistive devices for the blind	COMOP2102.2	Types of assistive technology
10	P	Demo of screen readers and Braille displays	COMOP2102.4	Product guides for devices
11	L	Vision and reading: Normal vs. low vision	COMOP2102.1	Reading assessment techniques
12	P	Assessment of color vision using Ishihara plates	COMOP2102.1	Overview of color vision testing

MOP2703 : VISION THERAPY

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name:	VISION THERAPY	3. Course Code	4. L-T-P	5. Credits
		MOP2703	2-0-2	3
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name)				
None				
8. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☒				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief				
Unit-I		6 Hours		
Clinical Conditions, Strabismus and Amblyopia, Amblyopia, Anisometropic / Isometropic Refractive Amblyopia, Strabismic Amblyopia, Hysterical 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, 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				
Unit-II		8 Hours		
Special clinical considerations, Anomalous Correspondence, Eccentric Fixation, Suppression, Motor Ranges, Stereopsis, Horror fusionalis/intractable diplopia, 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, Intersensory and Sensorimotor Integration, Visual-auditory, Visual-vestibular, Visual-oral, Visual-motor, Visual-tactual, 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				
Unit-III		8 Hours		
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, 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, Dyslexia and specific reading disabilities, Learning Disabilities, Computer Vision Syndrome				
Unit-IV		8 Hours		
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, How television, reading, video gaming might restrict movement, computer work, nutrition, etc., impact vision?, Perceptual				

Style, e.g., spatial/temporal, central/peripheral		
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)		
Lectures: 30	Tutorials: Nil	Practical's: 30
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:		
COMOP2703.1	Assess Binocular Vision and its anomalies	
COMOP2703.2	Formulate and interpret the results of various binocular vision assessment tests.	
COMOP2703.3	Understand and apply concepts of vision therapy	
COMOP2703.4	Distinguish various vision therapy tools for patient care	
COMOP2703.5	Assess patients with special conditions	
12. UNIT WISE DETAILS		No. of Units: 04
Unit-I		6 Hours
Clinical Conditions, Strabismus and Amblyopia, Amblyopia, Anisometropic / Isometropic Refractive Amblyopia, Strabismic Amblyopia, Hysterical 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, 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		
Unit-II		8 Hours
Special clinical considerations, Anomalous Correspondence, Eccentric Fixation, Suppression, Motor Ranges, Stereopsis, Horror fusionalis/intractable diplopia, 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, Intersensory and Sensorimotor Integration, Visual-auditory, Visual-vestibular, Visual-oral, Visual-motor, Visual-tactual, 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		
Unit-III		8 Hours
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, 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, Dyslexia and specific reading disabilities, Learning Disabilities, Computer Vision Syndrome		
Unit-IV		8 Hours
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, How television, reading, video gaming might restrict movement, computer work, nutrition, etc., impact vision?, Perceptual Style, e.g., spatial/temporal, central/peripheral		
13. Instructions for students		
a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.		
14. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not)		
Yes	No	✓
Describe (if yes): NA		
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)

a) SDG: 3	1. Weak	2. Moderate	3. High ✓
b) SDG:	1. Weak	2. Moderate	3. High
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. Clinical management of binocular vision Mitchell Scheiman and Bruce Wick 2. Applied concepts in vision therapy: Leonard Press 3. Pediatric optometry: Jerome K Rosner E-Book: NA Reference websites: 1. https://journals.lww.com/kjop/fulltext/2019/31010/refraction_and_glass_prescription_in_pediatric_age.18.aspx			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2703.1, COMOP2703.2
2.	Unit II	MSE, ESE and Continuous Evaluation	COMOP2703.5
3.	Unit III	MSE, ESE and Continuous Evaluation	COMOP2703.5
4.	Unit IV	MSE, ESE and Continuous Evaluation	COMOP2703.3, COMOP2703.4
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Theory+ Practical (2-0-2)	Mid Semester Exam (MSE) – Internal	20%	Must Secure 40% Marks in Internal Component and 40% in External Component
		Continuous Evaluation Through Class Tests/Practice/Assignments/Presentation/Quiz - Internal	20%	
		Lab Work - External	15%	
		End term Exam (ETE) – External	45%	

RUBRIC FOR EVALUATION:
 (At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments

Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2703.1	3	3	3	2	3	3	3	3	3	3	3	3	3	3
COMOP2703.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2703.3	3	3	3	2	3	3	3	3	3	3	3	3	3	3
COMOP2703.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2703.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No	Lecture/Tutorial	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	L	Special clinical considerations	COMOP2703.1	Clinical guidelines for vision assessment, Case studies on special clinical considerations
2.	L	Parvo cellular / Magno cellular function, Perceptual Style (central, peripheral)	COMOP2703.1	Neural pathways of visual processing, Research on parvocellular and magnocellular systems
3.	L	Visual requirements for academic success, Bilaterality, Gross and fine motor ability, memory, Form constancy, Visual speed and visual span, Visual sequencing	COMOP2703.2	Visual perception and learning, Developmental coordination disorders
4.	L	Role in computer-related asthenopia	COMOP2703.2	Digital eye strain literature, Ergonomic guidelines for computer users
5.	L	Behavioral disorders	COMOP2703.3	Vision and behavioral disorders, Psychological aspects of visual function
6.	P	Vision Therapy Concepts to Consider, Peripheral awareness, focal / ambient roles	COMOP2703.3	Vision therapy techniques, Peripheral vision training
7.	P	Significant findings which are good or poor prognostic	COMOP2703.3	Prognostic indicators in vision therapy, Clinical case studies
8.	P	Relationship of speech-auditory to vision	COMOP2703.4	Auditory-visual integration, Speech and visual perception research

9.	L	The relationship between the visual and vestibular systems	COMOP2703.4	Vestibular-ocular reflex, Visual-vestibular interaction in balance and movement
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MOP2508: RESEARCH PROJECT-II

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Course Name:		RESEARCH PROJECT-II	3. Course Code	4. L-T-P
		MOP2508	0-0-12	5. Credits
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐		
7. Prerequisite(s), if any (Mention course code and name) Research Project (MOP1505)				
8. Frequency of offering (check one): Odd ☒ Even ☐ Any Semester ☐ Both Semester ☒				
9. Focus: Employability ☐ Entrepreneurship ☒ Skill Development ☐ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief Data Collection, Literature search, Presentation of the progress of the project to the guide.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 180
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2508.1	Plan detailed Research Proposal			
COMOP2508.2	Summarize critical literature search & its interpretation			
COMOP2508.3	Apply various research methods & designs			
COMOP2508.4	Demonstrate clinical and research data collection			
COMOP2508.5	Analyze the process of statistical analysis and construct a dissertation			
COMOP2508.6	Propose final report based on research findings			

12. UNIT WISE DETAILS		No. of Units: 01
Data Collection, Literature search, Presentation of the progress of the project to the guide.		
13. Instructions for students		
a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators.		

c) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. d) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not)			
Yes No ✓			
Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓	
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: How to write a Thesis (Kothari) E-Book: Thesis writing: The T H E S I S approach (English edition) ebook : Mahajan, Rajiv, Singh, tejinder: Amazon.nl: Kindle Store (no date) Thesis Writing: The T H E S I S Approach (English Edition) eBook : Mahajan, Rajiv, Singh, Tejinder: Amazon.nl: Kindle Store. Available at: https://www.amazon.nl/Thesis-Writing-Approach-Rajiv-Mahajan-ebook/dp/B0BDLFNRX7 (Accessed: 31 May 2024). Reference websites: https://canterbury.libguides.com/writingup/thesiswritingbooks https://link.springer.com/book/10.1007/978-3-319-61854-8			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: NA			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2508.1, COMOP2508.2, COMOP2508.3, COMOP2508.4, COMOP2508.5, COMOP2508.6
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component

	12)	End Semester Practical/Case Report Including Viva-Voce - External	50%	
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RUBRIC FOR EVALUATION:

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
COMOP2508 .1			1	3			3		3	3	3			
COMOP2508 .2			1	3			3		3	3	3			
COMOP2508 .3	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP2508 .4	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP2508 .5			1	3			3		3	3	3			
COMOP2508 .6			1	3			3		3	3	3			
Average	1	0.66	1	3	1	1	3	0.66	3	3	3	1	1	1

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No	Practical (P)	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	P	Plan detailed Research Proposal	COMOP2508.1	Research proposal writing guidelines, Sample research proposals
2.	P	Summarize critical literature search & its interpretation	COMOP2508.2	Literature review techniques, Systematic review methodology
3.	P	Apply various research methods & designs	COMOP2508.3	Qualitative vs quantitative research, Experimental and observational study designs
4.	P	Demonstrate clinical and research data collection	COMOP2508.4	Data collection tools and techniques, Ethical considerations in clinical

				research
5.	P	Analyze the process of statistical analysis and construct a dissertation	COMOP2508.5	Basic statistical methods, Dissertation structuring guidelines
6.	P	Propose final report based on research findings	COMOP2508.6	Research report writing, Presentation and defense techniques

MOP2509: CLINICS-III

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name:	CLINICS-III	3. Course Code	4. L-T-P	5. Credits
		MOP2509	0-0-6	3
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐			
7. Prerequisite(s), if any (Mention course code and name) Clinic-II (General) (MOP1512)				
8. Frequency of offering (check one): Odd ☒ Even ☐ Any Semester ☐ Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to examine the eye and understand the all eye procedures with clinical management. - An approximate 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. - 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.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 90
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2509.1	Recall and diagnose various eye conditions and diseases			
COMOP2509.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP2509.3	Perform comprehensive eye test			
COMOP2509.4	Plan and manage several eye conditions using optometric management strategy			
COMOP2509.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS	No. of Units: 01			
- The objective of clinics in this semester is to be able to examine the eye and understand the all eye procedures with clinical management. - An approximate 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. - 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.			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓	
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 1. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 2. https://eyewiki.aao.org/Slit_Lamp_Examination			
E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Logbook	MSE, ESE and Continuous Evaluation	COMOP2509.1, COMOP2509.2, COMOP2509.3, COMOP2509.4, COMOP2509.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-16)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2509.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2509.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2509.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2509.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2509.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

- 3- Indicates Highest Correlation
 2-Indicates Moderate Correlation
 1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	P	Demonstration of slit-lamp examination, external eye, and adnexa.	COMOP2509.1	Slit lamp techniques

2	P	Hands-on practice examining corneal conditions.	COMOP2509.2	Anterior ocular pathologies Cornea
3	P	Use of contact (Goldmann) and non-contact tonometers. Measure IOP on patients.	COMOP2509.3	Tonometry
4	P	Practice techniques for assessing anterior segment, iris, and pupil reactions.	COMOP2509.3	Anterior segment
4	P	Case-based learning: Taking history for CL wearers.	COMOP2509.3	Contact Lens
5	P	Hands-on examination of anterior eye health.	COMOP2509.4	Anterior segment conditions
6	P	Measuring corneal size, shape, and pupil. Fitting specialty lenses (RGP, scleral).	COMOP2509.4	Fitting philosophies
7	P	Practice measuring visual acuity across ages.	COMOP2509.4	Visual Acuity charts
8	P	Techniques for assessing low-vision patients.	COMOP2509.4	Low Vision examination
9	P	Using subjective and objective refraction methods.	COMOP2509.4	Refraction
10	P	History-taking with case scenarios: Risk factors.	COMOP2509.5	Anterior segment evaluation
11	P	Identifying abnormalities using slit lamp and fundus exam.	COMOP2509.5	Slit lamp and fundus techniques
12	P	Hands-on case discussions: Making management and referral plans.	COMOP2509.6	Overview of cases
13	P	Practice history-taking for binocular vision cases.	COMOP2509.6	Binocular eye examination
14	P	Practice eye alignment, sensory fusion, stereopsis assessment.	COMOP2509.6	Binocular vision tests
15	P	Hands-on demonstration of key vision therapy exercises.	COMOP2509.6	Vision therapy

MOP2510: SPECIALTY CLINICS-II

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: SPECIALTY CLINICS-II	3. Course Code	4. L-T-P	5. Credits	
	MOP2510	0-0-8	4	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Clinics Speciality (MOP1513)				
8. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to get hand-on experience related to diagnosis, interpretation of the reports/findings and management. - An approximate 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. - The focus will be on the specialized subjects studied in this semester. - 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				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 120
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2510.1	Recall and diagnose various eye conditions and diseases			
COMOP2510.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP2510.3	Perform comprehensive eye test			
COMOP2510.4	Plan and manage several eye conditions using optometric management strategy			
COMOP2510.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS No. of Units: 01 - The objective of clinics in this semester is to be able to get hand-on experience related to diagnosis, interpretation of the reports/findings and management. - An approximate 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. - The focus will be on the specialized subjects studied in this semester.				

- 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			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mentioned whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓	
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 3. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 4. https://eyewiki.aao.org/Slit_Lamp_Examination			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2510.1, COMOP2510.2, COMOP2510.3, COMOP2510.4, COMOP2510.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-8)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:**(At least 5 Criteria)**

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2510.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2510.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2510.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2510.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2510.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Ocular Examination: Slit lamp Biomicroscopy, Tonometry and RAPD	COMOP2510.1	Slit lamp examination guidelines, Tonometry techniques, RAPD assessment methods

2.	P	Ocular Examination: examine for abnormalities of the cornea, contact and non-contact tonometer, abnormalities in the anterior chamber, abnormalities in the crystalline lens	COMOP2510.2	Corneal pathology reference, Contact vs. non-contact tonometry comparison, Anterior segment evaluation
3.	P	Contact Lens: history taking, preliminary examinations, pre fitting considerations and dispensing.	COMOP2510.3	Contact lens fitting guide, Patient history-taking techniques
4.	P	RGP: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2510.3	RGP lens fitting principles, Case studies on RGP lens dispensing
5.	P	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2510.3	Scleral lens fitting protocols, Advances in scleral lens technology
6.	P	Orthokeratology: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2510.3	Orthokeratology fitting guidelines, Myopia control strategies
7.	P	Visual Function & Ametropia: visual function tests and their appropriate techniques	COMOP2510.3	Visual function testing manual, Clinical techniques for ametropia assessment
8.	P	Visual Function & Ametropia: Ametropia and its quantification	COMOP2510.4	Refraction techniques, Optical correction of ametropia
9.	P	Ocular Abnormalities: structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease	COMOP2510.4	Ophthalmic history-taking guide, Systemic disease and ocular manifestations
10.	P	Ocular Abnormalities: visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms, appropriate management plan and urgent referrals	COMOP2510.4	Ocular disease diagnostic manual, Referral guidelines for ocular emergencies
11	P	Binocular Vision: appropriate binocular history taking, binocular vision assessment and diagnosis.	COMOP2510.5	Binocular vision testing protocols, Common binocular vision disorders and management

MOP2511: MYOPIA CONTROL WORKSHOP

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: SPECIALTY CLINICS-II	3. Course Code	4. L-T-P	5. Credits	
	MOP2511	0-0-4	2	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Clinics Speciality (MOP1513)				
8. Frequency of offering (check one): Odd ☒ Even Any Semester Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief • Prevalence of myopia • Need for myopia control • Risk factors • Role of Binocular Vision in myopia control • Review, Ortho-keratology, Soft bifocal contact lens, Atropine, Gas-permeable contact lenses, Bifocal spectacles, Multi-focal spectacles • Recent advances and review of literature • Case discussion • Ortho-keratology: guidelines, principles , fitting procedures and cases				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 120
11. Course Outcomes (COs)				
Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2511.1	Develop a comprehensive understanding of the prevalence of myopia, exploring global trends, demographic variations, and associated factors contributing to the increasing prevalence of myopia in different populations.			
COMOP2511.2	Recognize the significance of myopia control and its impact on visual health.			
COMOP2511.3	Acquire the skills to identify and assess various risk factors associated with myopia development and progression			
COMOP2511.4	Gain proficiency in various myopia control methods, including ortho-keratology, soft bifocal contact lenses, atropine use, gas-permeable contact lenses, bifocal spectacles, and multi-focal spectacles.			
COMOP2511.5	Understand the role of binocular vision anomalies in myopia progression and control, including accommodative lag, convergence insufficiency, and their impact on myopia management strategies.			
12. UNIT WISE DETAILS		No. of Units: 01		
• Prevalence of myopia • Need for myopia control • Risk factors				

• Role of Binocular Vision in myopia control • Review, Ortho-keratology, Soft bifocal contact lens, Atropine, Gas-permeable contact lenses, Bifocal spectacles, Multifocal spectacles • Recent advances and review of literature • Case discussion • Ortho-keratology: guidelines, principles, fitting procedures and cases			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓	
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 5. A K Khurana Ophthalmology 6. Jack J Kanski Edition 8th E-Book: NA Reference websites: 7. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 8. https://eyewiki.aao.org/Slit_Lamp_Examination			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 2. Certificate program in Clinical Optometry https://iamopto.com/course/None/16			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
2.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2511.1, COMOP2511.2, COMOP2511.3, COMOP2511.4, COMOP2511.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
4.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
5.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva

6.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks
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Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-4)	Workshop/Practical - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:**(At least 5 Criteria)**

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2511.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2511.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2511.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2511.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2511.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation
 2-Indicates Moderate Correlation
 1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Practical (P)	Topics / Sub-Topics	Course Outcome	Pre-Reading
1	P	Introduction to Myopia: Prevalence, Epidemiology, and Public Health Impact	COMOP2511.1	WHO reports on myopia, Recent global and Indian prevalence studies

2	P	Myopia Risk Factors & Need for Control: Environmental, Genetic, Behavioral	COMOP2511.2	Risk factors summary sheets, Review articles on modifiable risk factors
3	P	Role of Binocular Vision in Myopia Progression: AC/A ratio, Lag of accommodation, Phoria	COMOP2511.3	BV assessment protocols, Accommodation-lag and myopia research
4	P	Optical Management I: Introduction to Ortho-K, fitting principles, case screening	COMOP2511.4	Ortho-K fitting guidelines, FDA-approved Ortho-K brands
5	P	Optical Management II: Soft bifocal & multifocal CLs, RGP & GP lenses for myopia control	COMOP2511.4	Soft MF CL designs, GP lens designs for myopia control
6	P	Spectacle Options: Bifocal & multifocal spectacles for myopia control	COMOP2511.4	Lens design review, Clinical effectiveness of myopia control spectacles
7	P	Pharmacological Management: Atropine - dosing strategies, side effects, clinical outcomes	COMOP2511.4	Atropine in myopia control review articles, Clinical protocols
8	P	Visual Assessment in Myopic Patients: Subjective refraction, Axial length, Accommodation testing	COMOP2511.3	Myopia assessment protocols, Instrumentation guides
9	P	Case Discussion Workshop: Myopia progression in school-aged children – Management planning	COMOP2511.5	Case files with follow-ups, Management algorithm references
10	P	Recent Advances & Literature Review: DIMS lenses, Spectacle technologies, wearable interventions	COMOP2511.5	Latest RCTs in myopia control, Review articles on new technologies
11	P	Ortho-K Hands-On: Lens selection, Fitting evaluation, Fluorescein pattern interpretation	COMOP2511.5	Ortho-K troubleshooting guide, Video demonstrations
12	P	Myopia Control Workshop: Role play – Counseling parents & patients, Lifestyle modification strategies	COMOP2511.5	Counseling strategies in clinical optometry, Parental awareness studies

Semester IV

MOP2514: RESEARCH PROJECT-IV (DISSERTATION)

1. Department/ School:	Optometry / School of Healthcare and Allied Sciences			
2. Course Name: RESEARCH PROJECT-IV (DISSERTATION)	3. Course Code	4. L-T-P	5. Credits	
	MOP2514	0-0-14	7	
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Research Project (MOP2501)				
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester ☒				
9. Focus: Employability Entrepreneurship ☒ Skill Development ☒ Basic Knowledge				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief Data Collection, Literature search , Presentation of the progress of the project to the guide.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practicals: 210
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2514.1	Plan detailed Research Proposal			
COMOP2514.2	Summarize critical literature search & its interpretation			
COMOP2514.3	Apply various research methods & designs			
COMOP2514.4	Demonstrate clinical and research data collection			
COMOP2514.5	Analyze the process of statistical analysis and construct a dissertation			
COMOP2514.6	Propose final report based on research findings			
12. UNIT WISE DETAILS				No. of Units: 01
Data Collection, Literature search, Presentation of the progress of the project to the guide.				
13. Instructions for students				
a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. c) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. d) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.				
14. Multi-Disciplinary Approach				

(Please mentioned whether this course is multidisciplinary or not)

Yes No ✓

Describe (if yes):

NA

15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)	SDG level of correlation (Mention the level of correlation for each SDG)
a) SDG: 3	1. Weak 2. Moderate 3. High ✓
b) SDG: 17	1. Weak ✓ 2. Moderate 3. High

16. Title of Lab Manual (if applicable):
Not applicable

17. Books Recommended:
Reference Books: How to write a Thesis (Kothari)
E-Book: Thesis writing: The T H E S I S approach (English edition) ebook : Mahajan, Rajiv, Singh, tejinder: Amazon.nl: Kindle Store (no date) Thesis Writing: The T H E S I S Approach (English Edition) eBook : Mahajan, Rajiv, Singh, Tejinder: Amazon.nl: Kindle Store. Available at: <https://www.amazon.nl/Thesis-Writing-Approach-Rajiv-Mahajan-ebook/dp/B0BDLFNRX7> (Accessed: 31 May 2024).
Reference websites: <https://canterbury.libguides.com/writingup/thesiswritingbooks>
<https://link.springer.com/book/10.1007/978-3-319-61854-8>

18. E-Learning Resources: NA
NPTEL: NA
Animated Lab Videos: NA
MOOC Supplemented: NA

Experiential Learning Component

Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2514.1, COMOP2514.2, COMOP2514.3, COMOP2514.4, COMOP2514.5, COMOP2514.6

Activities for Differential learning Needs

Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-14)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2514.1			1	3			3		3	3	3			
COMOP2514.2			1	3			3		3	3	3			
COMOP2514.3	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP2514.4	3	2	1	3	3	3	3	2	3	3	3	3	3	3
COMOP2514.5			1	3			3		3	3	3			
COMOP2514.6			1	3			3		3	3	3			
Average	1	0.66	1	3	1	1	3	0.66	3	3	3	1	1	1

*Level of Mapping/correlation**3- Indicates Highest Correlation**2-Indicates Moderate Correlation**1-Indicate-Lowest Correlation***Course Plan (Lecture/Tutorial/Practical)**

S. No	Practical	Topics / Sub-Topics	Course Outcome	Pre Reading
1.	P	Plan detailed Research Proposal	CO1	NA
2.	P	Summarize critical literature search & its interpretation	CO1	NA
3.	P	Apply various research methods & designs	CO2	NA
4.	P	Demonstrate clinical and research data collection	CO3	NA
5.	P	Analyze the process of statistical analysis and construct a dissertation	CO4	NA
6.	P	Propose final report based on research findings	CO5	NA

MOP2512: CLINICS-IV

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Course Name:	CLINICS-IV	3. Course Code	4. L-T-P	5. Credits
		MOP2512	0-0-12	6
6. Type of Course (Tick one):		Programme Core ☒ Programme Elective ☐ Open Elective ☐ VAC ☐		
7. Prerequisite(s), if any (Mention course code and name) Clinics (General) (MOP2509)				
8. Frequency of offering (check one): Odd ☐ Even ☒ Any Semester ☐ Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☐ Skill Development ☒ Basic Knowledge ☐				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning ☐ Participative Learning ☐ Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to examine the eye and understand the all eye procedures with clinical management. - An approximate 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. - 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.				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 180
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2512.1	Recall and diagnose various eye conditions and diseases			
COMOP2512.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP2512.3	Perform comprehensive eye test			
COMOP2512.4	Plan and manage several eye conditions using optometric management strategy			
COMOP2512.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS No. of Units: 01 - The objective of clinics in this semester is to be able to examine the eye and understand the all eye procedures with clinical management. - An approximate 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. - 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.				

13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.				
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA				
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)		
a) SDG: 3		1. Weak 2. Moderate 3. High ✓		
b) SDG: 4		1. Weak 2. Moderate 3. High ✓		
16. Title of Lab Manual (if applicable): Not applicable				
17. Books Recommended: Reference Books: NA 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 1. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 2. https://eyewiki.aao.org/Slit_Lamp_Examination				
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16				
Experiential Learning Component				
Sr. No.	Topic	Submissions/Assessment		COs covered
1.	Logbook	MSE, ESE and Continuous Evaluation		COMOP2512.1, COMOP2512.2, COMOP2512.3, COMOP2512.4, COMOP2512.5
Activities for Differential learning Needs				
Sr. No.	Learning Level	Activities	Assessment	
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva	
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva	
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks	
Evaluation Scheme				
S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40%

	Courses of (0-0-12)			in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
COMOP2512.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2512.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2512.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2512.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2512.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

- 3- Indicates Highest Correlation
2-Indicates Moderate Correlation
1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Lecture/Practical(L/P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1	P	Demonstration of slit-lamp examination, external eye, and adnexa.	COMOP2512.1	Slit lamp techniques
2	P	Hands-on practice examining corneal conditions.	COMOP2512.2	Anterior ocular pathologies Cornea
3	P	Use of contact (Goldmann) and non-contact tonometers. Measure IOP on patients.	COMOP2512.3	Tonometry

4	P	Practice techniques for assessing anterior segment, iris, and pupil reactions.	COMOP2512.3	Anterior segment
4	P	Case-based learning: Taking history for CL wearers.	COMOP212.3	Contact Lens
5	P	Hands-on examination of anterior eye health.	COMOP2512.4	Anterior segment conditions
6	P	Measuring corneal size, shape, and pupil. Fitting specialty lenses (RGP, scleral).	COMOP2512.4	Fitting philosophies
7	P	Practice measuring visual acuity across ages.	COMOP2512.4	Visual Acuity charts
8	P	Techniques for assessing low-vision patients.	COMOP2512.4	Low Vision examination
9	P	Using subjective and objective refraction methods.	COMOP2512.4	Refraction
10	P	History-taking with case scenarios: Risk factors.	COMOP2512.5	Anterior segment evaluation
11	P	Identifying abnormalities using slit lamp and fundus exam.	COMOP2512.5	Slit lamp and fundus techniques
12	P	Hands-on case discussions: Making management and referral plans.	COMOP2512.6	Overview of cases
13	P	Practice history-taking for binocular vision cases.	COMOP2512.6	Binocular eye examination
14	P	Practice eye alignment, sensory fusion, stereopsis assessment.	COMOP2512.6	Binocular vision tests
15	P	Hands-on demonstration of key vision therapy exercises.	COMOP2512.6	Vision therapy

MOP2513: SPECIALTY CLINICS-III

1. Department/ School:		Optometry / School of Healthcare and Allied Sciences		
2. Course Name: SPECIALTY CLINICS-III		3. Course Code	4. L-T-P	5. Credits
		MOP2513	0-0-20	10
6. Type of Course (Tick one):	Programme Core ☒ Programme Elective Open Elective VAC			
7. Prerequisite(s), if any (Mention course code and name) Clinics (Speciality) (MOP2510)				
8. Frequency of offering (check one): Odd Even ☒ Any Semester Both Semester ☒				
9. Focus: Employability ☒ Entrepreneurship ☒ Skill Development ☒ Basic Knowledge				
10. Student centric methods used for enhancing learning experiences (Tick relevant)		☒ Experiential learning Participative Learning Problem solving methodologies		
Syllabus in Brief - The objective of clinics in this semester is to be able to gets hand-on experience related to diagnosis, interpretation of the reports/findings and management. - An approximate 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. - The focus will be on the specialized subjects studies in this semester. - 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				
Total lecture, Tutorial and Practical Hours for this course (Take 15 teaching weeks per semester)				
Lectures: Nil		Tutorials: Nil		Practical's: 300
11. Course Outcomes (COs) Possible usefulness of this course after its completion i.e., how this course will be practically useful to the students once it is completed:				
COMOP2513.1	Recall and diagnose various eye conditions and diseases			
COMOP2513.2	Identify & examine eye conditions & diseases using various ocular diagnostic tools			
COMOP2513.3	Perform comprehensive eye test			
COMOP2513.4	Plan and manage several eye conditions using optometric management strategy			
COMOP2513.5	Plan and co-manage ocular diseases with an ophthalmologist.			
12. UNIT WISE DETAILS		No. of Units: 01		
- The objective of clinics in this semester is to be able to gets hand-on experience related to diagnosis, interpretation of the reports/findings and management. - An approximate 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.				

- The focus will be on the specialized subjects studies in this semester. - 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			
13. Instructions for students a) Before coming to the class, please familiarize yourself with various epidemiological and community eye care principles and concepts. b) Read about the interpretation approach of different epidemiological data and community eye care indicators. d) Attendance is mandatory, and all students must maintain at least 80% attendance throughout the course. e) All students must submit a project related to epidemiology or community eye care, either individually or in groups, to apply the concepts learned in real-world scenarios.			
14. Multi-Disciplinary Approach (Please mention whether this course is multidisciplinary or not) Yes No ✓ Describe (if yes): NA			
15. SDG Number (Mention SDGs number out of 17 SDGs for which this course is mapping)		SDG level of correlation (Mention the level of correlation for each SDG)	
a) SDG: 3		1. Weak 2. Moderate 3. High ✓	
b) SDG: 4		1. Weak 2. Moderate 3. High ✓	
16. Title of Lab Manual (if applicable): Not applicable			
17. Books Recommended: Reference Books: 1. A K Khurana Ophthalmology 2. Jack J Kanski Edition 8th E-Book: NA Reference websites: 1. https://www.keeler.co.uk/blog/post/retinoscopy-procedure-beginners-guide 2. https://eyewiki.aao.org/Slit_Lamp_Examination			
18. E-Learning Resources: NA NPTEL: NA Animated Lab Videos: NA MOOC Supplemented: 1. Certificate program in Clinical Optometry https://iamopto.com/course/None/16			
Experiential Learning Component			
Sr. No.	Topic	Submissions/Assessment	COs covered
1.	Unit I	MSE, ESE and Continuous Evaluation	COMOP2513.1, COMOP2513.2, COMOP2513.3, COMOP2513.4, COMOP2513.5
Activities for Differential learning Needs			
Sr. No.	Learning Level	Activities	Assessment
1.	Slow learners	Extra classes, assignment, one to one interaction, guest lectures	Assignment, MSE, Test, viva
2.	Intermediate learners	Skill training, Journal club activities, guest lectures	Test, feedback, viva
3.	Advanced Learners	VAC courses, skill training	Presentation, viva, feedbacks

Evaluation Scheme

S. No.	TYPE OF COURSE	PARTICULAR	ALLOTTED RANGE OF MARKS	PASS CRITERIA
1	Practical/Practice or for The Courses of (0-0-20)	Regular Practical/Practice & LogBook - Internal	50%	Must Secure 40% Marks in Internal Component and 40% in External Component
		End Semester Practical/Case Report Including Viva-Voce - External	50%	

RUBRIC FOR EVALUATION:
(At least 5 Criteria)

Criteria	Developing Level (1 mark)	Competent Level (2 marks)	Exemplary Level (3 marks)
Critical Thinking	Good	Average	Excellent
Learning Skill	Slow learner	Moderate learner	Advance learner
Assignment	Descriptive	Descriptive + Illustrative	Descriptive + Illustrative + recent developments
Internal evaluation (MSE + class assignment)	50-70%	70-90%	>90%
External Evaluation (ETE)	50-70%	70-90%	>90%

Mapping of CO-PO and CO-PSO:

CO Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
COMOP2513.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2513.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2513.3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2513.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
COMOP2513.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Level of Mapping/correlation

3- Indicates Highest Correlation

2-Indicates Moderate Correlation

1-Indicate-Lowest Correlation

Course Plan (Lecture/Tutorial/Practical)

S. No.	Practical (P)	Topics / Sub- Topics	Course Outcome	Pre-Reading
1.	P	Ocular Examination: Slit lamp Biomicroscopy, Tonometry and RAPD	COMOP2513.1	Slit lamp examination guidelines, Tonometry techniques, RAPD assessment methods
2.	P	Ocular Examination: examine for abnormalities of the cornea, contact and non-contact tonometer, abnormalities in the anterior chamber, abnormalities in the crystalline lens	COMOP2513.2	Corneal pathology reference, Contact vs. non-contact tonometry comparison, Anterior segment evaluation

3.	P	Contact Lens: history taking, preliminary examinations, pre fitting considerations and dispensing.	COMOP2513.3	Contact lens fitting guide, Patient history-taking techniques
4.	P	RGP: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2513.3	RGP lens fitting principles, Case studies on RGP lens dispensing
5.	P	Mini Scleral and Scleral: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2513.3	Scleral lens fitting protocols, Advances in scleral lens technology
6.	P	Orthokeratology: preliminary examinations, pre-fitting considerations, fitting philosophies and dispensing.	COMOP2513.3	Orthokeratology fitting guidelines, Myopia control strategies
7.	P	Visual Function & Ametropia: visual function tests and their appropriate techniques	COMOP2513.3	Visual function testing manual, Clinical techniques for ametropia assessment
8.	P	Visual Function & Ametropia: Ametropia and its quantification	COMOP2513.4	Refraction techniques, Optical correction of ametropia
9.	P	Ocular Abnormalities: structured ophthalmic history taking into account awareness of risk factors of ocular and systemic disease	COMOP2513.4	Ophthalmic history-taking guide, Systemic disease and ocular manifestations
10.	P	Ocular Abnormalities: visual function and the appearance of the eye and adnexa, interpretation of signs and symptoms, appropriate management plan and urgent referrals	COMOP2513.4	Ocular disease diagnostic manual, Referral guidelines for ocular emergencies
11	P	Binocular Vision: appropriate binocular history taking, binocular vision assessment and diagnosis.	COMOP2513.5	Binocular vision testing protocols, Common binocular vision disorders and management