Master of Optometry-Practitioner

Syllabus - First Semester

EPIDEMIOLOGY, PUBLIC HEALTH & COMMUNITY OPTOMETRY

Course Code: OPP4101 **Credit Units: 03**

Course Objective: To inculcate the knowledge, sensitivity and clinical exposure of community optometry. The outcomes of the course are: thorough understanding of conducting of screening for specific eye conditions, and resultant implications through theoretical and practical exposure. By the end of the course the student will be able to use the knowledge of the skills gained in promotion and preventive measures of community optometry.

Course Contents:

Module-I: Public health concepts

History of public health, History of public health optometry (including epidemology, man power, projections, and community reimbursement mechanisms), Organizations of health services (principles of primary, secondary and tertiary care) Health Care Delivery systems in India and determinants of health. Detriments of health care delivery system planning of health services (including revelent legislation and implication to optometric practice). Health manpower protection and in the practice of ophthalmology Multidisciplinary and institutional practice modes Global medicine and evolution of Public Health in India, Public Health optometry: concepts and implementation

Module-II: Levels of prevention-optometrist's role in community
Optometry's role as a care primary care professional, preventable blindness

Module-III: Health systems
Concepts of Health systems National Health Programs Effective delivery of eye care services,
Role of civil societies in blindness prevention:
Vision2020: the Right to Sight
National and International Agencies in eye Care, NPCB
DBCS

Module-IV: Global Blindness and visual impairment
Refractive error and low vision as public health issues
Socioeconomic implications of blindness and visual impairment
Vision screening
Organizing eye camps
Eye Donation and Eye Banking

Module-V: Epidemiology
Prevalence, incidence and distribution of visual impairment
Basics of Epidemiology study methods

Incidence, prevalence, risk factors, odd ratio
Childhood blindness
Refractive errors and presbyopia
Age related macular degeneration
Low Vision
Diabetic retinopathy
Glaucoma
Age related Macular Degeneration
Trachoma
Corneal blindness

Examination Scheme:

Components	**A**	**CT**	**P (field report)**	**HA**	**EE**
Weightage (%)	5	10	10	5	70

A: Attendance, CT: Class Test, HA: Home Assignment, P: Presentation, EE: End Semester Exam

Text book and reference

- Community eye health journal
- Epidemiology of Eye Diseases, by Gordon and Drawin

BINOCULAR VISION & PEDIATRIC OPTOMETRY-I

Course code: OPP4102 **Credits Units: 04**

Course Objective: This course gives both in-depth theoretical knowledge and clinical exposure in Binocular Vision, Orthoptics & Pediatric vision care. The outcomes of this course are: Thorough understanding of the visual development issues, evaluation of pediatric subjects, and non-surgical management of the pediatric binocular and refractive problems, amblyopia and Strabismus.

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

BINOCULAR VISION

Course Contents:
Module-I:
Revision: Applied anatomy and physiology of extraocular muscle and Oculomotor Function
Retinal and cortical development, refractive development, Development of vision, ocular changes with age

Module-II:
Binocular Vision: and related aspects, Development of binocular vision, Physiology of binocular vision. Development of ocular deviation and its adaptation

Module-III:
Amblyopia and occlusion, Management guidelines of Amblyopia, Abnormal retinal correspondence, Anomalies of accommodation and its management, Anomalies of convergence and its management, Nystagmus

PEDIATRIC OPTOMETRY

Module-I:
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

Module-II:
Common genetic problems in Pediatric optometry, Pediatric Ocular Diseases
Ocular Trauma in Children, Myopia control

Examination Scheme:

Components	A	CT	P	HA	EE
Weightage (%)	5	10	10	5	70

A: Attendance, CT: Class Test, HA: Home Assignment, P: Presentation, EE: End Semester Exam

Recommended Text books

- Clinical management of binocular vision Mitchell Scheiman and Bruce Wick
- Applied concepts in vision therapy: Leonard Press
- Paediatric optometry: Jerome K Rosner

Reference books

- Binocular Vision And Ocular Motility , Guntoor Von Noordan
- Clinical Orthoptics ,Fiona Rowe
- Strasbimus Simplified ,Pradeep Sharma
- Assessing Children's Vision, Susan J Leat, Rosalyn H Shute, Carol A Westal
- Paediatric Optometry, William Harvey/ Bernard Gilmartin
- Pediatric Optometry, Jerome Rosner

RESEARCH METHODOLOGY & BIOSTATISTICS

Course Code: OPP4106 **Credit Units: 04**

Research Methodology

Course Objective: This course is a brief overview about research design that is intended to cover the basics of designing and implementing a scientific study. It will provide the students the basic knowledge in Bio-statistics. At the completion of the course, the students will have the knowledge of data collection, statistical application and finally ready for research project. This will enable the student to gain understanding of different research methodologies and appropriate research design to be able to conduct research projects.

Course Contents:

Module-I:

Introduction to research methods, Variables in research, Reliability and validity in research, Formulation of research problems and writing research questions, Hypothesis, Null and Research Hypothesis, Type I and Type II errors in hypothesis testing

Module-II:

Introduction of epidemiology, Descriptive epidemiology, Experimental and non experimental research designs, Screening, Sampling methods, Biological variability, normal distribution

Module-III:

Bias and Confounding, Association and causation, Odds ratio and relative risk, sensitivity and specificity Data collection methods- Observation method, Interview method, Questionnaires and schedules Construction,

Module-IV:

Critical analysis of research papers, Conducting a literature review, Writing Research proposals, Development of conceptual framework in research

Module-V: Introduction to Biostatistics

Introduction to Statistics, Classification of data, Source of data, Method of scaling - nominal, ordinal, ratio and interval scale, measuring reliability and validity of scales, Measures of Central tendency, Measures of Dispersion, Skewness and kurtosis, Sampling, Sample size determination

Examination Scheme:

Components	CP	V	A	ME	EE
Weightage (%)	5	5	5	15	70

(CP – Class Performance; V-Viva; A- Attendance; ME- Mid-Term Exam, EE – End semester Exam)

Text & References:

Text books:

- Research Methodology: A Step By Step Guide For Beginners : Ranjit Kumar
- Research Methodology: Methods and Techniques : By C. R. Kothari

PROJECT

Course Code: OPP4132 **Credit Units: 04**

RESEARCH PROJECT:

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.

Syllabus - Second Semester

BINOCULAR VISION –II & VISION THERAPY

Course Code: OPP4203 **Credit Units: 4**

Course Objective:
This course provides the student with the ability to diagnose as well as to initiate treatment for patients who present with non-strabismus binocular dysfunctions, accommodative anomalies, and non-pathologic oculomotor dysfunction. From a diagnostic perspective, it will integrate the clinical information gained in with the theoretical and practical information covered in other courses discussing binocular vision. Treatment options discussed will include the judicious application of lenses and prisms, as well as an introduction to optometric vision therapy. The course then takes a more clinical turn, as it provides the student with an organized approach to the clinical evaluation and management of a patient with strabismus and/or amblyopia. Discussions focus on natural history, etiology, signs and symptoms, related characteristics, significance and practical management of amblyopia, esotropia, exotropia, and noncombatant strabismus. There is special emphasis on the clinical decisions and procedures needed to recognize functional versus pathological etiologies with a laboratory component, setting the stage for discussion and hands-on experience with relevant diagnostic and treatment procedures.

Course Contents:

Module-I: Strabismus
Diagnosis of strabismus anomalies
Clinical model of visual processing
Diagnostic Evaluation of strabismus
Nystagmus

Module-II: Management Strategy and treatment options
Lens Therapy
Prism Therapy
Occlusion Therapy
Active Vision Therapy
Pharmacological Therapy
Surgical Therapy

Module-III: Management of sensory anomalies
Treatment of suppression
Treatment of functional amblyopia
Treatment of anomalous correspondence

Module-IV: Strabismus management strategies
Management of Exotropia’s
Management of Esotropias
Management of vertical strabismus
Dyslexia

Examination Scheme

Components	A	CT	P	HA	EE
Weightage (%)	5	10	10	5	70

A: Attendance, CT: Class Test, HA: Home Assignment, P: Presentation, EE: End Semester Exam

Recommended Text & Reference books

- Pediatric Optometry ,Jerom Rosner ,Butterworth Heinmann
- Binocular Vision And Ocular Motility , Guntoor Von Noordan
- Clinical Orthoptics, Fiona Rowe
- Strasbimus Simplified, Pradeep Sharma
- Assessing Children's Vision, Susan J Leat, Rosalyn H Shute, Carol A Westal
- Paediatric Optometry, William Harvey/ Bernard Gilmartin
- Clinical management of strasbismus, Elizabeth E Caloroso, btterworth

CLINICS-II (SPECIALITY)

Course Code: OPP4205 **Credit Units: 3**

The objective of clinics in this semester is to be able to examine the eye and understand the classified eye procedures with clinical management with special reference to low vision, binocular vision, pediatric care and contact lens.

An approximate of guided150 hours needs to be completed in this semester. The students will be by rotation go to community clinics, Campus clinics, associated hospital partners and optical / optometric clinics.

The logbook must be maintained and 30 case sheets of SELECTED specialty 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.

Examination Scheme

Components	Attd.	Log Book	Case Sheets	Viva-EE	EE-Practical
Weightage (%)	5	10	15	20	50

A: Attendance, EE: End Semester Exam

OCULAR DISEASE AND DIAGNOSTICS-I

Course code: OPP4211 **Credit Units: 04**

Course Objectives: This course gives both in-depth theoretical knowledge and clinical exposure to the diagnostic procedures. The outcomes of this course are: Thorough understanding of the basic and advanced ophthalmic procedures and instrumentation through didactic lectures and clinical postings.
Evidence based approach to Diagnosis, Clinical decision Making, Management and co management of anterior segment ocular diseases. Developing more reading ability of scientific journals for more evidence based management with recent understanding of diseases.

Desired competencies
Ability to perform clinical decision making for Ocular abnormalities
Referral criteria
Ability to perform and interpret corneal diagnostics including Topography/Pentacam/Orbscan
Specular microscopy
Pachymetry
Abberometry
AS OCT UBM
Ability to perform pre and post Lasik evaluation
Ability to interpret glaucoma diagnostic reports
OCT
Gonioscopy /HRT /GDX
ONH evaluation
Ability to perform anterior segment photography
Ability to manage and co-manage therapeutics for anterior segment

Recent advances will be added time to time

Examination Scheme:

Components	A	CT	HA (log book)	EE-Viva	EE-Practical
Weightage (%)	5	10	15	20	50

A: Attendance, CT: Class Test, HA: Home Assignment, EE: End Semester Exam

Recommended Text books:
- Clinical Ophthalmology: Jack J Kanski
- Diagnostics and imaging techniques in Ophthalmology: Amar Agarwal

Reference books
- Clinical Procedures in Optometry : J. Boyd Eskridge, John F. Amos, Jimmy D. Bartlett
- Primary care in Optometry :Theodore Grosvenor, Theodore P. Grosvenor
- Clinical Procedure Prim Eyecare : By David B. Elliott

PROJECT

Course Code: OPP4232 **Credit Units: 04**

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

Examination Scheme

Components	Overall Progress	Literature Review	Presentation	Total
Weightage (%)	40	40	20	100

Syllabus - Third Semester

ADVANCED CONTACT LENS-II

Course Code: OPP4303 **Credit Units: 4**

Course Objective: This course gives both in-depth theoretical knowledge and clinical exposure in Contact lens at advanced level and in therapeutic conditions. It prepares student to develop competency in handling all types of specialty lenses. This course also deals with all complications related to contact lenses and its management.

COURSE COMPETENCIES:
Ability to understand corneal physiology and oxygen needs
Ability to diagnose and manage complications due to contact lenses
Ability to fit specialized contact lenses
Keratoconus
Rose 'lenses
Mini scleral lenses
Handling complications

Course Contents:

Module-I: & II: Ability to fit specialized contact lenses
Keratoconus
Rose 'lenses
Mini scleral lenses
Hybrid lenses
Orthokeratology
Scleral lenses: Dry eyes, SJS, Post PK, Post C3R, Post LASIK ectasia
Ability to fit custom made ocular prosthesis
Ability to fit paediatric contact lenses

Module-III: Contact lens complications
For all types of lenses

Module-IV: Business Aspects of Contact Lens Practice
Contact lenses (CLs) in practice, Financial factors in a CL practice, Managing &marketing techniques for a CL practice, Employee management, Record Keeping, Professionalism & standards of care
Communication skill
Recent advances

Examination Scheme

Components	A	CT	P	HA	EE
Weightage (%)	5	10	10	5	70

A: Attendance, CT: Class Test, HA: Home Assignment, P: Presentation, EE: End Semester Exam

Recommended Text & Reference books:

- IACLE modules B, C, D, E
- Text book Of Contact Lenses 5th edition by Sinha Rajesh, Jaypee publication 2017
- Contact lens Primer
- Essentials of Contact lens practice
- Silicone hydrogels: the rebirth of continuous wear contact lenses, Deborah F. Sweeney, Butterworth Heinemann
- Clinical manual of Contact Lenses, Edward S. Bennett and Vinita AlleeHenry, Lippincott Williams and Wilkins, 2008
- Medical Contact Lens Practice, Elisabeth A. W. Millis
- Contact Lenses, Anthony J. Phillips and Lynne Speedwell
- The CLAO Guide to Basic Science and Clinical Practice: Volumes 1, 2, 3, Contact Lens Association of Ophthalmologists

CLINICS-III (SPECIALITY)

Course Code: OPP4305 **Credit Units: 4**

The objective of clinics in this semester is to be able to examine the eye and understand the eye procedures with clinical management with special reference to complete optometric care.

A minimum of guided 240 hours need to be completed in this semester. The students will be by rotation go to community clinic, Campus clinics, associated hospital partners and optical / optometric clinics.

The logbook has to be maintained and 30 case sheets of complete case management and follow up are mandatory for submission.

The log book needs to be signed by the supervisor every time a case is recorded in it. No case will be considered without the supervisor's signature.

Examination Scheme

Components	**A**	**Assignment (log book)**	**Case sheets**	**EE-Viva**	**EE-Practical**
Weightage (%)	5	15	10	20	50

A: Attendance, EE: End Semester Exam

OCULAR DISEASES AND DIAGNOSTICS-II

Course Code: OPP4308 **Credit Units: 4**

Course Objective: In this course, latest articles published in optometry and vision science journals will be discussed. Periodic Journal club presentation would be conducted. This will enable the student to develop skill on critical appraisal of publications and help to keep abreast of latest developments in the field of optometry and vision science. The course would also provide insight on understanding and/or incorporation of scientific evidence in clinical practice.

This course examines selected areas of recent research in optometry. Current advances in methodology, specifics of research design, and impact of research findings will be emphasized. Selected topics are based on participating faculty expertise will be assigned to the students.

Students will be assigned topics of presentation during the semester and they will have to present base literature review and latest advancements.

Text & Reference books /journals:
Clinical and experimental optometry, Edited By: H. Barry Collin
Optometry & vision science, journal of American academy of optometry
Optometry journal of American optometric association
Ophthalmic and Physiological Optics Journal of the College of Optometrists, UK
Contact lens & anterior eye: the journal of the British Contact Lens Association
British Contact Lens Association

CLINICAL DECISION MAKING IN OPTOMETRIC CARE-I

Course Objective: Upon completing this course, the student will achieve a moderately-high level of competence with respect to a modest list of patient presentations commonly encountered by primary care optometrists. By the course's end, the student will be able to conduct a comprehensive, primary-care optometric examination, reach a diagnosis, and outline a management plan for most of, many of patients seen during the year. The course will cover the general areas of ocular disease, refraction, functional vision analysis, and patient communication.

Course Contents: In this course, the student will begin with refreshing their basic knowledge on common eye disease of the anterior segment. The course would further orient towards clinical decision-making skills, interpretation and improving their clinical skill set, clinical management of optometry. They will learn and develop skills on evidence/intuitive based management for the commonly seen eye diseases and learn appropriate referral & co management guidelines for secondary or tertiary ophthalmic care

The mode of delivery would be through cases scenarios discussion, problem based learning and seminar/workshops and Presentations. Records need to be maintained in the following pathologies.
The following common conditions will be covered in this semester:

This semester will focus on Ability to manage and co-manage diseases and disorders of posterior segment

Examination Scheme:

Components	A	Presentation	Presentation-EE	Case Records	EE-Viva	EE-Viva
Weightage (%)	5	20	20	5	30	20

A: Attendance, EE-End Semester Exam

Text books:

- Kanski, Clinical Ophthalmology: A Systematic Approach – May 2011 Edition, Jack J. Kanski MD MS FRCS Froth, Brad Bowling FRCSEd(Ophth),Elsweare heath science division
- Optometric Management Of Visual Handicap, Helen Farral,Blackwell Scientific Publications, 1991
- Ocular Differential Diagnosis, Roy
- Clinical Decision Making In Optometry, Ellen Richter Ettinger OD MS FAAO
- Anterior segment disease and Management by Andrian Bruce

PROJECT

Course Code: OPP4332 **Credit Units: 06**

Research Project Data update

Examination Scheme

Components	Results & Analysis	Data Collection	Conclusion & Discussion	Total
Weightage (%)	40	40	20	100

INTERNSHIP

Eye care clinic: This sequence of courses gives students direct patient care experience and responsibilities in affiliated health centers, hospitals or in private practices. Clinical preceptors will evaluate and guide the student through the process of providing eye care. Students are graded on key clinical tools: technical skills, knowledge base, analytical skills, diagnostic skills, management and treatment, communication skills, efficiency, attitude, and professionalism. The clinical grade is honors, pass, remedial, or fail based on a midterm and final preceptor evaluation; on meeting documentation requirements, such as maintaining documentation; and on submitting patient logs, and site evaluations.

The AUG department of Optometry monitors the quality and quantity of patient encounters for each student. Through the clinical assignments, students will gain proficiency in full scope primary care optometry and contact lenses. All students must satisfy a minimum number of patient encounters during their assignments. Some students may be assigned to specific sites to assure a clinical experience based on their projects. Some students may meet the contact lens requirement through affiliations set up on behalf of the students during the summer vacations with private practitioners who meet the College's program standards.

Four rotations during the final semester complete the clinical requirements, with mandatory assignments in Primary Care, Advanced Care and Specialty Care. Students choose an additional assignment in one of the mandatory categories or from a list of elective sites based on their projects. The College currently has affiliated clinical sites located around the campus and in other states.

Clinical sites that provide comprehensive eye care services for patients of all age brackets are categorized as Primary Care sites. Typically, these sites are eye care hospitals or private optometric practices. Clinical sites that provide professional specialty care are categorized as Specialty Care clinics. These include clinics specializing in visual therapy/binocular vision, contact lenses, pediatrics, geriatrics, patients with disabilities, or low vision. The rotation provides training in these specialty areas.

Syllabus - Fourth Semester

CLINICAL OPTOMETRY (GENERAL)

Course Code: OPP4401 **Credit Units: 06**

Objective: It is expected that upon completion the student will be able to carry out the standard clinical procedures safely and efficiently

PATIENT HISTORY

1.1 Communicates with the patient

1.1.1 Modes and methods of communication are employed which consider the physical, emotional, intellectual and cultural background of the patient.

1.1.2 A structured, efficient, rational and comfortable exchange of information between the optometrist and the patient takes place.

1.2 Makes general observations of patient

1.3 Obtains the case history

1.4 Obtains and interprets patient information from other professionals

2. **PATIENT EXAMINATION**

2.1 Formulates

2.1.1 An examination plan based on the patient history is designed to obtain the information necessary for diagnosis and management.

2.1.2 Tests and procedures appropriate to the patient's condition and abilities are selected.

2.2 Implements examination plan

2.2.1 Tests and procedures which will efficiently provide the information required for diagnosis are performed.

2.2.2 The examination plan and procedures are progressively modified based on findings.

2.3 Assesses the ocular adnexa and the eye

2.3.1 The structure and health of the ocular adnexa and their ability to function are assessed.

2.3.2 The structure and health of the anterior segment and its ability to function are assessed.

2.3.3 The structure and health of the ocular media and their ability to function are assessed.

2.3.4 The structure and health of the posterior segment and its ability to function are assessed.

2.3.5 The nature of the disease state is determined.

2.3.6 Microbiological tests are selected and ordered

2.4 Assesses central and peripheral sensory visual function and the integrity of the visual pathways

2.4.1 Vision and visual acuity are measured.

2.4.2 Visual fields are measured.

2.4.3 Colour vision is assessed.

2.4.4 Pupil function is assessed.

2.5 Assesses refractive status

2.6 Assesses oculomotor and binocular function.

2.6.1 Eye alignment and the state of fixation are assessed.

2.6.2 The quality and range of the patient's eye movements are determined.

2.6.3 The status of sensory fusion is determined.

2.6.4 The adaptability of the vergence system is determined.

2.6.5 Placement and adaptability of accommodation are assessed.

2.7 Assesses visual information processing

Examination Scheme

Components	Attd.	Case Records	Assignments	Clinical Supervisors Evaluation	Case Discussion	Practical + Viva
Weightage (%)	5	10	10	15	10	50

ADVANCE CLINICAL RETINA

Course Code: OPP4407 **Credit Units: 10**

Course Contents:
Retinal evaluation, diagnostics & optometric management
Low vision Evaluation, deciding diagnosis & management plan
Visual Rehabilitation for visually impaired person

Examination Scheme

Components	**Attd.**	**Case Records**	**Clinical Supervisors Evaluation**	**EE Practical + Viva**
Weightage (%)	5	10	15	70

ADVANCE CLINICAL GLAUCOMA

Course Code: OPP4408 **Credit Units: 10**

Course Contents:
Glaucoma investigation diagnostics and optometric management
Low vision Evaluation, deciding diagnosis & management plan
Visual Rehabilitation for visually impaired person

Examination Scheme

Components	Attd.	Case Records	Clinical Supervisors Evaluation	EE Practical + Viva
Weightage (%)	5	10	15	70

ADVANCE CLINICAL PEDIATRIC, BINOCULAR VISION & VISION THERAPY

Course Code: OPP4409 **Credit Units: 10**

To assess and manage patients with anomalies of binocular vision
To Assess binocular status using objective and subjective tests.
To Understanding of the management of a patient with an anomaly of binocular vision.
To Investigate and manage adult patients presenting with heterophoria
To Manage an adult patient with heterotropia
To Manage children at risk of developing an anomaly of binocular vision.
To Manage children presenting with an anomaly of binocular vision.
To Manage a patient presenting with an incomitant deviation.

Examination Scheme

Components	**Attd.**	**Case Records**	**Clinical Supervisors Evaluation**	**EE Practical + Viva**
Weightage (%)	5	10	15	70

ADVANCE APPLIED OPTICS

Course Code: OPP4410 **Credit Units: 10**

Course Contents:

MODULE I- Spectacle prescription & interpretation, transposition, Add and near power relation, Prescription for various requirements. e.g intermediate uses /computer use

MODULE II- Facial measurements – IPD, Frame size, bridge size, facial wrap, Pantoscopic tilt

MODULE III-Deciding most suitable type of single vision and bifocal Lens

MODULE IV- Lens selection of Progressive addition lenses as per patient needs

MODULE V- Frame selection and recommendation as per patient needs and facial type, communication & counselling of patient regarding frame selection

MODULE VI- Dispensing, ordering &verification of spectacle

MODULE VII- latest Technology in ophthalmic lenses and frames

Examination Scheme

Components	**Attd.**	**Case Records**	**Clinical Supervisors Evaluation**	**EE Practical + Viva**
Weightage (%)	5	30	30	35

ADVANCE CORNEA & CONTACT LENS

Course Code: OPP4411 **Credit Units: 10**

Course Contents:
Insert and remove contact lenses and instruct patients in these procedures.
Fit soft contact lenses.
Manage the aftercare of patients wearing soft contact lenses
Advise on contact lens materials and care regimes
Manage the aftercare of patients wearing rigid gas permeable contact lens.
Fit rigid gas permeable contact lenses.
Fit contact lenses to patients with astigmatism.
Techniques used in fitting contact lenses and to advise patients requiring complex visual correction.
Fit multifocal, contact Lenses
- Fit special contact lenses e.g Rose K , Orthokeratology, Scleral
Dispensing, ordering &verification of spectacle
Contact lens complications

Examination Scheme

Components	**Attd.**	**Case Records**	**Clinical Supervisors Evaluation**	**EE Practical + Viva**
Weightage (%)	5	10	15	70

CLINICAL DISSERTATION

Course Code: OPP4437 **Credit Units: 11**

Course Contents:

MODULE-I: Thesis Proposal Development is an independent tutorial conducted by the student's advisor, and involves a comprehensive literature survey of the chosen research area. Through regular meetings, the student and advisor discuss this literature in detail, and the student writes a paper, reviewed by the advisor, summarizing the literature. This paper should help in the development of the thesis proposal and thesis.

MODULE-II: Thesis Proposal At the end of the Semester 2. each student must submit to the university with the signed approval of the advisor, a thesis proposal defining the thesis project, the methods and design of the experiments needed for completion, the progress to date, and plans for completion.

MODULE-III: Thesis Preparation
This is involving preparation of the thesis. The thesis must include a cover and title page, abstract, table of contents, Introduction of the thesis topic with a comprehensive review of the literature, appropriately organized methods, results, and discussion sections for the experiments performed, and a final conclusions section summarizing the outcome of the project. The student should submit a draft of the thesis to the advisor by the end of the third semester. Plans should be in place for the thesis examination to be held in the final exam.

MODULE-IV: Thesis submission
Project Work and Practical Training

A Full-time student admitted to M.Optom course will have to be involved in teaching under-graduate students for lectures, demonstrations and hands-on practical sessions.
All students will have to choose ONE specialty subject at start of first year M.Optom and inform the University through School of Optometry in writing within 3 months of being admitted for the first Semester M.Optom
As a part of clinical training during the first year M. Optom every student will document
Minimum number of cases specified in clinically examined by them. These clinical cases will have to be submitted before end of 4thsemester
Every student will have to do a dissertation thesis during the second year M. Optom for this. Every student should submit a protocol which will have to be approved and accepted by post graduate teaching faculty at School of Optometry within second semester of starting first year.

Two copies of the dissertation thesis will have to be submitted before 15thMay in second year.
Some post graduate students may have to work with ophthalmic and optical industry in their projects of practitioner education, research and other related activities which will be given as assignments by the School of Optometry, Amity medical school.

Examination & Rules of passing for first and Second Year M. Optom

Format for term end examination Theory papers
Each theory examination will be of 100 marks and 3 Hours duration, 70% marks will be taken as external marks.
Each theory examination paper will have total three Sections

Examination Pattern:
Each semester examination will consist of both internal assessment and term end examination in the subjects prescribed in syllabus for each semester. The Faculty will conduct the internal assessments as per schedule prepared by school of optometry.

Amity University, Gurgaon will conduct university every term end examination
Eligibility for a student to appear in term for semester-term end Examination

Minimum 50% marks in internal assessment i.e. minimum 15marks in theory internal and minimum 25 marks in practical/Viva/Oral

Minimum 75% attendance for all course, if of these eligibility conditions have not been satisfied, the student will not be allowed to appear for semester term end examinations

Duration of examination at end for each semester term for each written/practical/clinical examination will be such as may be notified from time to time on recommendation of the Amity University, Gurgaon authorities.

Results and passing for each semester Examination:
A student will be declared to have passed theory subjects provided he/she has secured not less than 50% marks out of 100 (15 marks out of 30 in internal assessment and 35 marks out of 70 in term end examination) in each theory subject for every semester.

A student will be declared to have passed in a subject provided he/she has secured not less than 50 marks out of 100 [25 marks out of 50 in internal Assessment and 25 marks out of 50 in terms end examination] in each practical subject for every semester.

A student will be declared to have "PASSED" the complete semester Examination provided he/she has secured 50% marks individually in all theory and practical subjects of that semester.

If a student fails or does not appear for semester examination for semester I& III he/she will still be allowed to attend the theory classes and practical sessions for the semester II & IV Respectively, which falls in same academic year.

A student who has not appeared or has failed in the semester examination for semester I& III will have to appear for the internal and external exams for only that subject along with semester exam for the current semester i.e. II and IV respectively.

Only when the student is declared pass all subject of semester I and semester II examinations will be admitted to the second year of the course.

A student who has not appeared or has failed in the semester examination for semester I & II will not be admitted to the second year of the course. He/ She will have to get readmitted in the first year and pay the fees as prescribed by the university.

Allowed to keep term: If the student secures minimum 50% marks in at least three subjects of first year M. Optom, he/she will be allowed to keep term for second year. However, he/she will have to pass in all the subjects of first year M. Optomto become eligible to apply/appear for second year final M. Optom University Examinations.

Repeat term: If the student fails in four or all five subjects of first year, he/she will be asked to pay the tuition fees proportionate to the number of subjects failed and the university examination fees and then appear for the midterm external examinations in those subjects in which he/she failed earlier. But they are not required to appear for internal examinations and neither repeat project.

Second Year M. Optom Passing: The internal examination and external examination marks will be added as the final marks of that subject for each year. Only when the student secures minimum 50% marks [Internal External=combined] in all subjects of both the years and has completed the M. Optom. Course and will be eligible for post graduate degree of Master of Clinical optometry [M. Optom]

Repeat Dissertation: If the M. Optom student has failed in subject of the second year M. Optom the student will be required to either repeat the same dissertation project OR Choose different dissertation project and appear for the year end examination only.
He/she cannot take midterm examination for this subject in month of February every year.

If any student fails three times successively in the same subject at the university examinations for either first or second year M. Optom, Hershel will not be allowed to continue the M. Optom course and his admission stands cancelled.

Award of the Degree:
A student who has secured 5.5 CGPAM. Optom Examination will be Eligible for conferment of Master of clinical Optometry [M. Optom] Post Graduate Degree by Amity university, Gurgaon

Award of Gold Medal:
Gold Medal will be awarded to the student who secures maximum marks in first and second, Third& Fourth semester M. Optom added together, the candidate should have cleared each subject in every term in the first attempt.

Guidelines for Master research project work:
Basic reading material: Introductory reading material on research methodology, how to do a literature search and statistical methods should be provided at the beginning of the semester.

The students should read the material thoroughly and can mail their queries to their guides. a. Assignment 1: Exercises should be also given based on the reading material

The student should learn to do a thorough Pub Med search in their area of research interest. Read the recent research articles initially. Find out the research gaps. Based on that set up your research aim. Your research aim should not be a repetition of an already done research. Substantiate the necessity (Gap in current research) for the proposed study. (Assignment II: mailed to guide)

Discuss with your peers and clinicians regarding the Originality & objective of the study, feasibility of the study and other ethical issues involved: Very important

Institutional Review Board and Ethics committee approval
Consent form certified
As they begin the research, it would be wise to also meet the statistician

Sample size estimation
Microsoft excel or access proforma design

Prepare a rough draft of the protocol (Assignment III)

Emphasize on the methodology
The final protocol should be ready by end of FIRST semester

Update your research activities at least once in a month to your guide (Data collection proforma as excel sheet).

Data entry should be done in Excel appropriately. Consult with your local statistician for any queries and discuss with your guide. (Assignment IV)

End of your data collections takes to Analysis: Kindly discuss with your guide and a statistician (Assignment V: on the basics of statistics pertaining to your research interest) *

In the thesis introduction, literature and methodology should be ready before the end of fourth semester.

Submission of the final thesis to the guide should be done before one month of the deadline given. So that your guide will have enough time to review and make corrections.