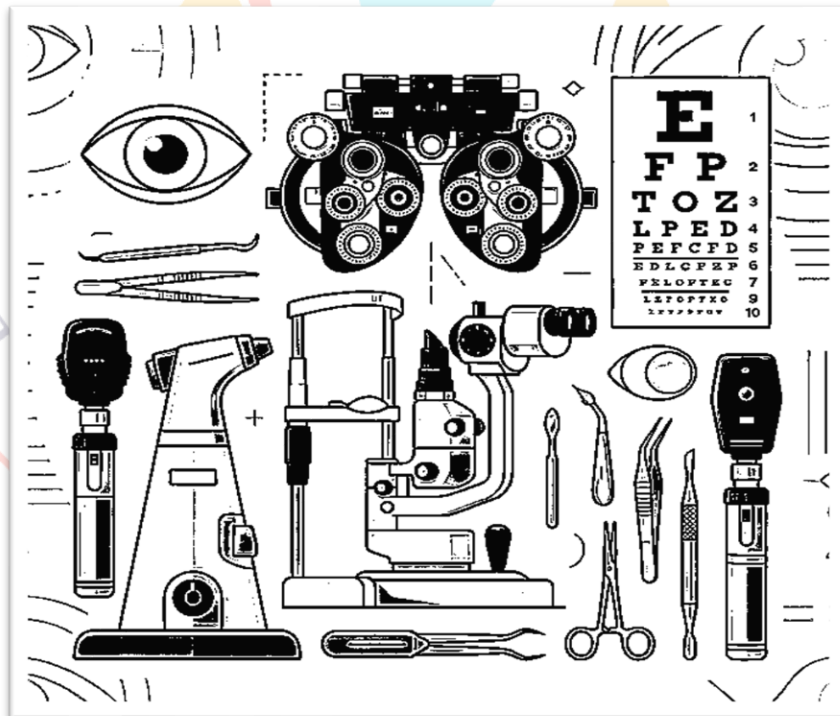




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National Commission for Allied and Healthcare Professions
(NCAHP)

Competency-Based Curriculum for Diploma in Ophthalmic Assistant (D.OA)



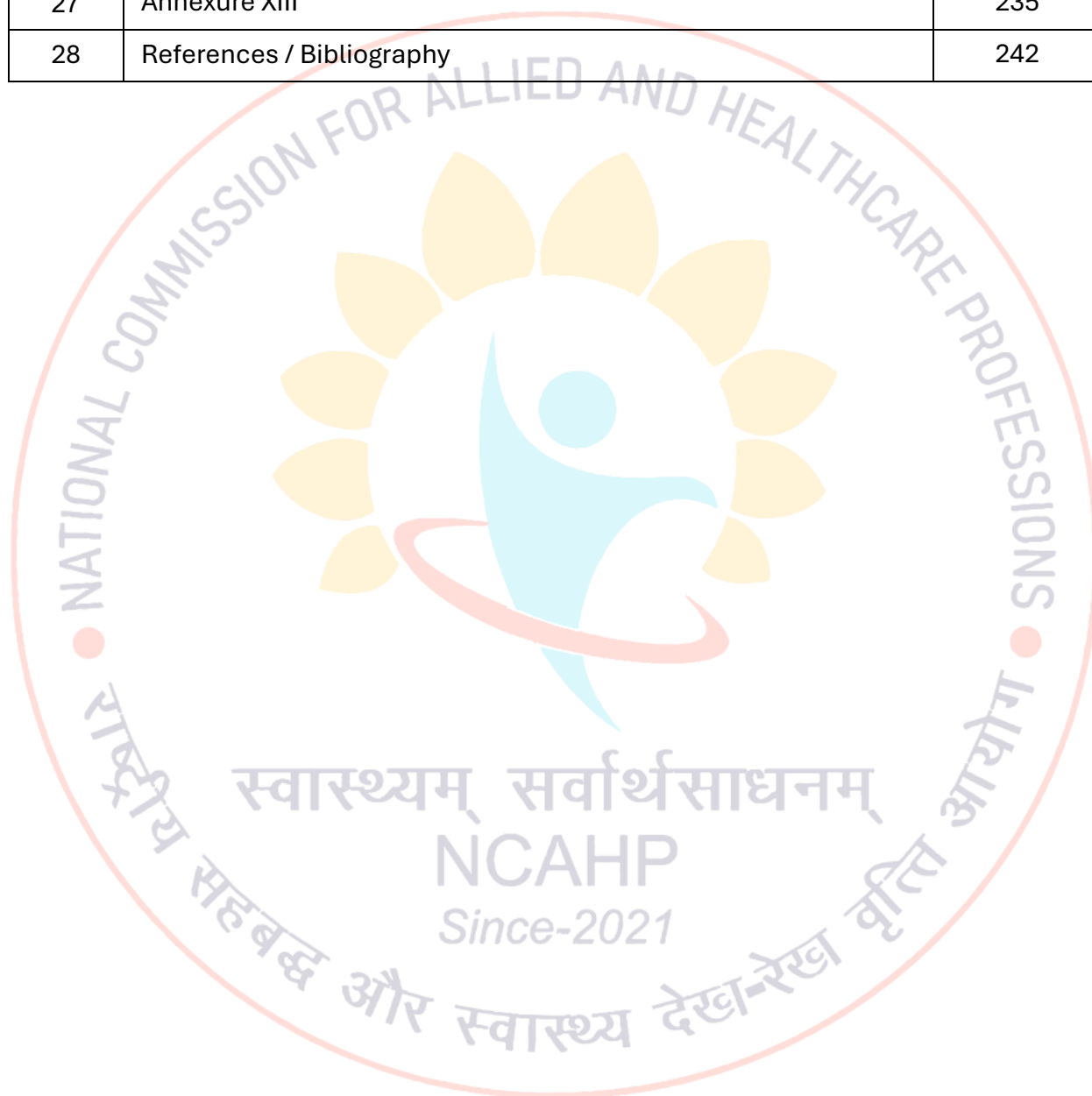
As per the NCAHP Act -2021



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Contributors in The Drafting and Review of Diploma in Ophthalmic Assistant (D.OA) Curriculum

Task Force Experts

The following Task Force Committee members contributed to the development of this curriculum:

1. Dr. Sanjay Kumar Mishra – Lead Coordinator

Scientist, Dr. R. P. Centre for Ophthalmic Sciences, All India Institute of Medical Sciences (AIIMS), New Delhi; **Executive Director**, Indian Optometry Federation (IOF); **Council Member**, Ophthalmic Sciences Professions Council, NCAHP, MoHFW, Govt. of India

2. Dr. Konda Venkata Nagaraju – Expert Member

Associate Professor, School of Medical Sciences, University of Hyderabad, Hyderabad, Telangana

3. Dr. Vijay Kumar Yelagondula – Expert Member

Registrar, Bausch & Lomb School of Optometry, Brien Holden Institute of Optometry and Vision Sciences, L V Prasad Eye Institute, Banjara Hills, Hyderabad, Telangana.

4. Dr. Himanshu Tripathi – Expert Member

Professor & Dean, Faculty of Allied Health Sciences, Chandigarh University, Nawabganj, Unnao, Uttar Pradesh, India.

5. Dr. Chaithu Sarakham Aimol – Expert Member

Associate Professor, Regional Institute of Paramedical and Nursing Sciences (RIPANS), MoHFW, Government of India, Aizawl, Mizoram

6. Dr. Rajesh Kumar – Expert Member

Senior Optometrist, Atal Regional Institute of Ophthalmology, Pt. B. D. Sharma PGIMS, Rohtak, Haryana, **State Advisor**, Haryana Ophthalmic Assistant Association, Haryana

7. Smt. Manjula Devi Sarma N – Expert Member

Tutor Technician Optometry, School of Optometry, Regional Institutes of Ophthalmology (RIO), Government Medical College, Thiruvananthapuram, Kerala.

Preface

Eye health forms an essential component of overall health and quality of life. Visual impairment and blindness continue to impose significant public health, social, educational, and economic burdens globally and particularly in developing countries like India. A substantial proportion of visual impairment is preventable or treatable when timely screening, diagnosis, referral, and management services are made accessible through a strong and efficient eye healthcare delivery system. In this context, the role of trained ophthalmic allied healthcare professionals is critically important in delivering quality eye care services across hospital-, community-, and outreach-based healthcare settings.

The Diploma in Ophthalmic Assistant (D.OA) curriculum has been developed to create a standardised, competency-based, clinically oriented, and implementation-friendly educational framework for training ophthalmic support personnel in India. The programme seeks to address the increasing need for qualified Ophthalmic Assistants (OA) /Vision Technician (VT) capable of participating effectively in ophthalmic diagnostic procedures, refraction support services, ophthalmic operation theatre assistance, sterilisation protocols, patient counselling, community eye screening, ophthalmic documentation, and other essential ophthalmic support functions as defined in ISCO Code 3256.

The curriculum has been prepared in accordance with the provisions and educational philosophy of the National Commission for Allied and Healthcare Professions (NCAHP) Act, 2021, Ministry of Health and Family Welfare (MoHFW), Government of India. The framework has been designed after careful review of the competency-based curriculum structure approved for Optometry and other allied healthcare professions, while adapting the content appropriately for diploma-level ophthalmic assistant education and training.

The Task Force responsible for curriculum development recognised the growing burden of ophthalmic diseases, the increasing patient load in eye care institutions, the shortage of trained ophthalmic support manpower, and the expansion of community eye care programmes across the country. Simultaneously, rapid technological advancements in ophthalmic diagnostics, imaging, teleophthalmology, digital health systems, and ophthalmic surgical support have significantly transformed the skill requirements expected from OA/VT in contemporary healthcare practice. Therefore, this curriculum emphasises practical competency development, supervised clinical exposure, patient safety, infection prevention and control, professional ethics, communication skills, and community ophthalmology in addition to foundational theoretical knowledge.

During the curriculum development process, extensive consultations and discussions were undertaken with ophthalmologists, optometrists, OA/VT, clinical educators, healthcare administrators, academic institutions, and professionals involved in ophthalmic and allied healthcare education.

Existing national and international curricula, competency standards, educational frameworks, and healthcare workforce requirements were carefully reviewed to ensure that the curriculum remains academically sound, clinically relevant, and aligned with present-day healthcare needs.

Special consideration was given to aligning the programme with the International Standard Classification of Occupations (ISCO-08 Code 3256) and the competency-based structure recognised under allied and healthcare professional education systems. The curriculum also incorporates provisions for academic progression and lateral mobility pathways, maintaining broad alignment with the Optometry curriculum framework to facilitate future opportunities for higher education and professional advancement.

The programme has been structured on a semester and credit basis, integrating theory, practical training, clinical postings, skill laboratory exposure, simulation-based learning, community outreach activities, and supervised internship training. Emphasis has been placed on continuous competency assessment through practical examinations, logbooks, clinical evaluations, competency checklists, and objective structured clinical assessments to ensure the development of safe and competent ophthalmic support personnel.

This curriculum handbook additionally includes detailed syllabi, learning objectives, competencies, clinical posting schedules, examination blueprints, internship guidelines, infrastructure requirements, faculty norms, competency assessment formats, logbook templates, and suggested learning resources to facilitate uniform implementation across institutions.

The Task Force sincerely hopes that this competency-based curriculum will meaningfully strengthen ophthalmic allied healthcare education and expand the availability of skilled ophthalmic support professionals in India. It is expected that the programme will support the national objective of improving accessibility, quality, affordability, and efficiency of eye healthcare services while strengthening preventive, promotive, curative, and rehabilitative ophthalmic care delivery systems.

The Task Force expresses its gratitude to all experts, academic institutions, clinicians, and stakeholders who contributed their valuable inputs and guidance during the curriculum development and review process. It is hoped that this curriculum will serve as a robust foundation for the training of competent, ethical, patient-centred, and professionally responsible OA/VT capable of supporting quality eye healthcare services throughout the country.

Acknowledgements

The Task Force for the development of the Competency-Based Curriculum for the Diploma in Ophthalmic Assistant (D.OA) expresses its sincere gratitude to all individuals, institutions, experts, and organisations for their guidance, support, expertise, and valuable contributions, which enabled the preparation of this curriculum.

The Task Force expresses its deep appreciation to the National Commission for Allied and Healthcare Professions (NCAHP), Ministry of Health and Family Welfare (MoHFW), Government of India, for providing the regulatory framework, educational vision, and curriculum development guidelines that served as the foundation for this document. The Commission's competency-based approach has significantly strengthened standardisation, quality assurance, and outcome-oriented allied healthcare education in India.

The Task Force is especially grateful to the Ophthalmic Sciences Professional Council for its encouragement, academic guidance, and continued support during the curriculum planning and review process. The council's expert suggestions and recommendations greatly assisted in ensuring that the curriculum remains professionally relevant, academically robust, clinically practical, and aligned with contemporary ophthalmic healthcare requirements.

The Task Force sincerely acknowledges the valuable contributions of ophthalmologists, optometrists, OA/VT, clinical educators, academicians, healthcare administrators, and allied healthcare professionals who participated in consultations, discussions, review meetings, and expert deliberations during the curriculum development process. Their practical insights and professional experience helped shape the curriculum into a competency-based, patient-centred, and implementation-oriented educational framework.

Special appreciation is extended to the members of the Task Force Committee for their dedication, collaborative efforts, academic commitment, and valuable intellectual contributions throughout the curriculum drafting and revision process.

The Task Force Committee includes:

S. No	Name	Position
1	Dr. Sanjay Kumar Mishra	Lead Coordinator
2	Dr. Konda Venkata Nagaraju	Expert Member
3	Dr. Vijay Kumar Yelagondula	Expert Member
4	Dr. Himanshu Tripathi	Expert Member
5	Dr. Chaithu Sarakham Aimol	Expert Member
6	Dr. Rajesh Kumar	Expert Member
7	Smt. Manjula Devi Sarma N	Expert Member

The Task Force also acknowledges the contributions of academic institutions, eye hospitals, training centres, and healthcare organisations whose educational frameworks, clinical practices, and institutional experiences have significantly shaped various components of this curriculum.

Sincere thanks are extended to all professionals and stakeholders involved in community ophthalmology services, blindness prevention programmes, public health initiatives, and ophthalmic support services across the country. Their commitment to strengthening accessible, affordable eye care delivery systems highlighted the urgent need for structured ophthalmic assistant education and workforce development.

The Task Force further acknowledges the authors, educators, institutions, and organisations whose published textbooks, competency frameworks, educational models, scientific literature, and ophthalmic learning resources served as important academic references during the preparation of this curriculum document.

The contributions of students, trainees, and young professionals who shared practical perspectives on clinical training, internship exposure, skill acquisition, and academic challenges are also gratefully acknowledged. Their feedback provided valuable insight into the practical implementation aspects of ophthalmic assistant education.

Finally, the Task Force expresses its gratitude to all individuals and organisations directly or indirectly associated with the development of this curriculum. It is sincerely hoped that this curriculum will strengthen ophthalmic allied & healthcare education, improve the quality of eye care services, and develop competent OA/VT capable of supporting ophthalmic sciences related professions in delivering safe, ethical, accessible, and patient-centred eye healthcare services across India.

List of Abbreviations Used in the Curriculum

Abbreviation	Full Form
ARMD	Age-Related Macular Degeneration
AS-OCT	Anterior Segment Optical Coherence Tomography
BCVA	Best Corrected Visual Acuity
BCL	Bandage Contact Lens
BF	Bifocal
BV	Binocular Vision
CCT	Central Corneal Thickness
CL	Contact Lens
CME	Continuing Medical Education
CN	Cranial Nerve
CSME	Clinically Significant Macular Edema
CVI	Cerebral Visual Impairment
D	Diopter
DFE	Dilated Fundus Examination
DME	Diabetic Macular Edema
DR	Diabetic Retinopathy
DRS	Diabetic Retinopathy Screening
ECCE	Extracapsular Cataract Extraction
EHR	Electronic Health Record
EMR	Electronic Medical Record
ERG	Electroretinography
FAG	Fundus Fluorescein Angiography
FDT	Frequency Doubling Technology
GAT	Goldmann Applanation Tonometry
GPCL	Gas Permeable Contact Lens
HFA	Humphrey Field Analyser
HVID	Horizontal Visible Iris Diameter

Abbreviation	Full Form
ICD	International Classification of Diseases
IJO	Indian Journal of Ophthalmology
IOL	Intraocular Lens
IOP	Intraocular Pressure
IVI	Intravitreal Injection
K	Keratometry
LASIK	Laser-Assisted in Situ Keratomileusis
LE	Left Eye
LogMAR	Logarithm of the Minimum Angle of Resolution
LP	Light Perception
mfERG	Multifocal Electroretinography
MoHFW	Ministry of Health and Family Welfare
NPCBVI	National Programme for Control of Blindness and Visual Impairment
NCAHP	National Commission for Allied and Healthcare Professions
OCT	Optical Coherence Tomography
OK	Orthokeratology
ONH	Optic Nerve Head
OPD	Outpatient Department
OR	Operating Room
OSCE	Objective Structured Clinical Examination
OSPE	Objective Structured Practical Examination
PCIOL	Posterior Chamber Intraocular Lens
PH	Pinhole
PKP	Penetrating Keratoplasty
POAG	Primary Open Angle Glaucoma
PSC	Posterior Subcapsular Cataract
PVD	Posterior Vitreous Detachment
RAPD	Relative Afferent Pupillary Defect
RB	Retinoblastoma

Abbreviation	Full Form
RE	Right Eye
RGP	Rigid Gas Permeable
RNFL	Retinal Nerve Fiber Layer
RP	Retinitis Pigmentosa
SD-OCT	Spectral Domain Optical Coherence Tomography
SICS	Small Incision Cataract Surgery
SLE	Slit Lamp Examination
VA	Visual Acuity
VF	Visual Field
VEP	Visual Evoked Potential
WCO	World Council of Optometry
WHO	World Health Organization



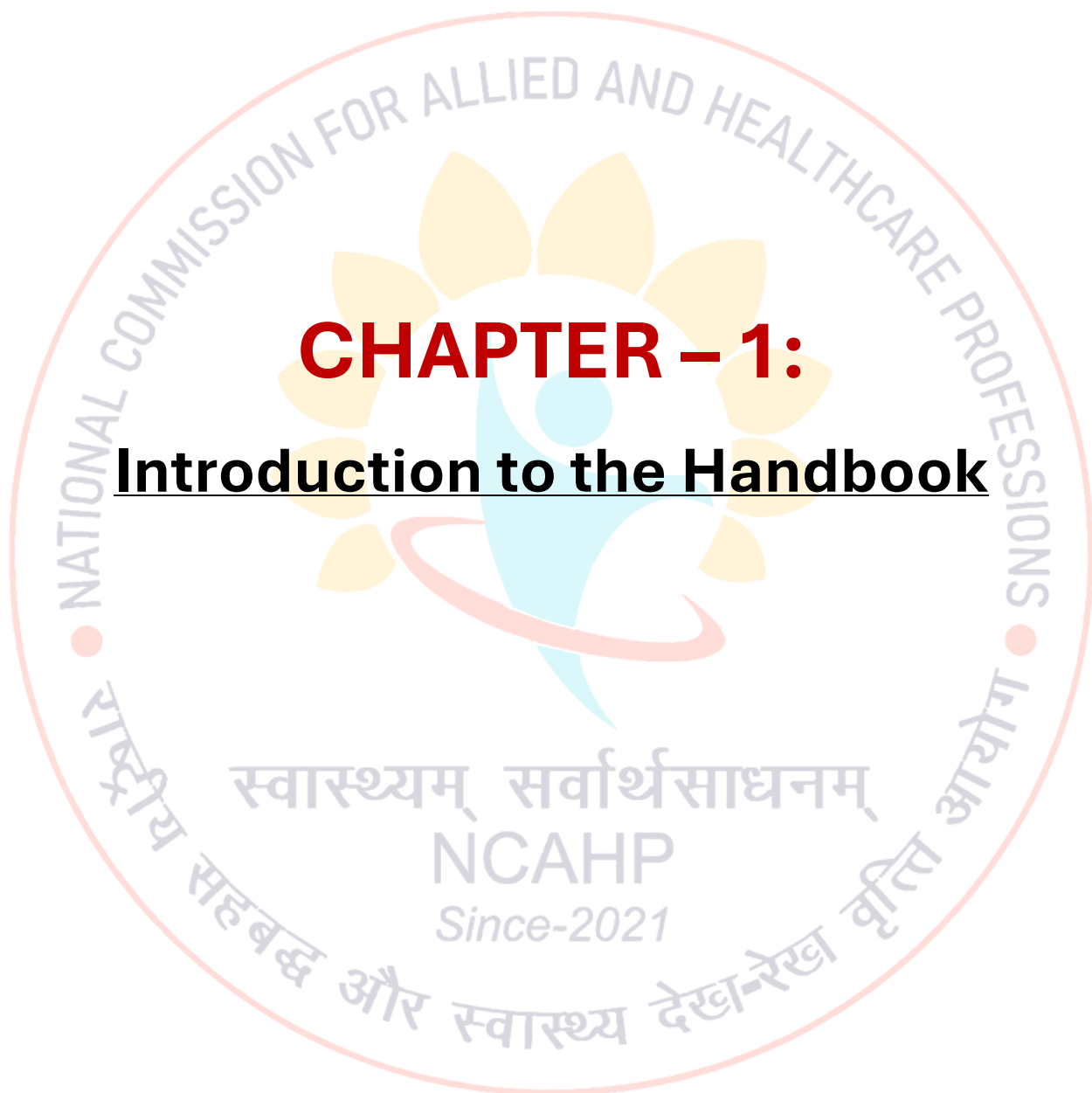
Teaching & Academic Abbreviations

Abbreviation	Full Form
CBCS	Choice Based Credit System
CME	Continuing Medical Education
CPD	Continuing Professional Development
FDP	Faculty Development Programme
GPA	Grade Point Average
MCQ	Multiple Choice Question
OBE	Outcome-Based Education
PO	Program Outcome
PSO	Program Specific Outcome
SAQ	Short Answer Question
SGD	Small Group Discussion
TBL	Team-Based Learning

Clinical & Diagnostic Instrument Abbreviations

Abbreviation	Full Form
A-Scan	Amplitude Scan Ultrasonography
B-Scan	Brightness Scan Ultrasonography
FFA	Fundus Fluorescein Angiography
OCTA	Optical Coherence Tomography Angiography
SAP	Standard Automated Perimetry
UBM	Ultrasound Biomicroscopy





CHAPTER – 1:

Introduction to the Handbook

1.1 Allied and Healthcare Professionals

Allied and healthcare professionals constitute an essential component of the healthcare delivery system and play a significant role in preventive, promotive, diagnostic, therapeutic, rehabilitative, and supportive healthcare services. In modern multidisciplinary healthcare practice, allied health professionals are integral members of the healthcare team and contribute substantially to improving the accessibility, efficiency, affordability, and quality of patient care services.

Within ophthalmic healthcare, trained allied professionals support ophthalmologists and optometrists in various clinical, diagnostic, rehabilitative, surgical assistance, and community eye care activities. The increasing burden of visual impairment, technological advancements in ophthalmic diagnostics, expansion of eye care services, and growing healthcare demands have highlighted the need for structured education and competency-based training for ophthalmic allied healthcare professionals.

The National Commission for Allied and Healthcare Professions (NCAHP), Ministry of Health and Family Welfare (MoHFW), Government of India, has recognised the importance of standardising and regulating allied and healthcare professional education to strengthen healthcare delivery systems and improve patient care outcomes across the country.

1.2 Scope and Need of Ophthalmic Assistants in Indian Healthcare

Ophthalmic Assistants (OA) or Vision Technician (VT) are an important part of the ophthalmic healthcare workforce in delivering comprehensive eye care services. They contribute to various ophthalmic support functions, including visual assessment, refraction assistance, ophthalmic diagnostic procedures, operation theatre assistance, sterilisation procedures, optical dispensing, patient counselling, clinical documentation, and community vision screening activities under appropriate supervision.

India continues to face a substantial burden of preventable blindness and visual impairment, particularly in rural and underserved regions. Expansion of eye care services, increased patient inflow in hospitals and eye care centres, and national blindness prevention initiatives have created a growing demand for trained ophthalmic support personnel who can function efficiently within multidisciplinary eye healthcare teams.

The Diploma in Ophthalmic Assistant (D.OA) programme has therefore been developed to produce competent ophthalmic support professionals who can contribute effectively toward strengthening ophthalmic healthcare services in hospitals, eye care institutions, community eye care programmes, optical establishments, and outreach services.

1.3 Learning Goals and Objectives

The primary goal of the D.OA programme is to develop competent, ethical, skilled, and patient-centred OA/VT who can work as per ISCO Code 3256 in clinical and community eye care settings.

The curriculum aims to provide students with adequate theoretical knowledge, practical competencies, communication skills, infection prevention practices, and professional behaviour required for safe and effective ophthalmic assistance services. The programme also seeks to promote patient safety, ethical conduct, community orientation, and multidisciplinary teamwork.

The specific learning objectives of the programme include the development of competencies in visual acuity assessment, ophthalmic history-taking, refraction assistance, ophthalmic diagnostic procedures, operating theatre support, sterilisation techniques, patient counselling, optical dispensing, community eye screening, and maintenance of ophthalmic records and documentation.

The programme additionally emphasises professional accountability, communication skills, ethical practices, biomedical waste management, and infection prevention and control measures necessary for healthcare practice.

1.4 Salient Elements in Allied Healthcare Education

Contemporary allied healthcare education emphasises competency-based learning, clinical skill development, patient-centred care, and integration of theory with practical training. The educational framework for ophthalmic assistant training has therefore been designed to ensure balanced exposure to classroom teaching, practical laboratory sessions, clinical postings, community outreach activities, and supervised internship training.

The curriculum incorporates skill-based education with emphasis on supervised clinical exposure, practical assessment, communication skills, professional ethics, patient safety, and infection prevention practices. Continuous learning, self-directed study, reflective practice, and interdisciplinary collaboration are also encouraged throughout the programme.

The curriculum additionally integrates simulation-based learning, clinical demonstrations, case discussions, skill laboratories, and supervised procedural training to facilitate effective skill acquisition and competency development.

1.5 Competency-Based Curriculum

The Diploma in Ophthalmic Assistant programme follows a competency-based curriculum framework designed to ensure progressive development of knowledge, practical skills, professional behaviour, and clinical competencies required for ophthalmic assistance practice.

Competency-based education focuses not only on the acquisition of theoretical knowledge but also on the demonstration of practical abilities, ethical conduct, communication skills, and safe clinical practices. Students are expected to achieve defined competencies through repeated supervised exposure, skill practice, clinical participation, and continuous assessment.

The curriculum emphasises cognitive, psychomotor, and affective domains of learning. Practical competencies are developed through skill laboratory training, clinical postings, operation theatre exposure, community eye screening programmes, and internship-based supervised learning experiences.

1.6 Credit Hours and Semester System

The programme follows a semester- and credit-based academic structure designed to facilitate systematic progression in learning and a balanced distribution of theory, practical, and clinical training components. The curriculum has been developed in alignment with competency-based educational principles and includes integrated classroom teaching, practical sessions, clinical exposure, and internship training.

Credits have been allocated based on theory teaching hours, practical training hours, clinical postings, skill laboratory activities, and self-directed learning components. The semester system facilitates continuous assessment, progressive competency development, academic flexibility, and structured evaluation of learning outcomes.

The total duration, credits, and training hours have been structured to ensure adequate exposure to foundational sciences, ophthalmic procedures, clinical competencies, and community eye care services.

1.7 Integrated Curriculum Structure

The curriculum adopts an integrated educational structure wherein theoretical teaching is closely linked with practical demonstrations, clinical exposure, and competency-based training. The integrated approach enables students to apply theoretical concepts within clinical and practical settings and promotes a better understanding of ophthalmic procedures and patient care.

Foundational subjects such as anatomy, physiology, optics, communication skills, and computer education are integrated with clinical ophthalmic sciences, refraction assistance, ophthalmic diagnostics, sterilisation protocols, and community ophthalmology. Practical and clinical exposure has been progressively incorporated throughout the programme to ensure gradual competency acquisition and confidence-building among learners.

The integrated structure additionally supports interdisciplinary learning and promotes a holistic understanding of ophthalmic healthcare delivery systems.

1.8 Foundation Courses

Foundation courses form an essential component of the programme and provide students with basic knowledge and professional skills necessary for healthcare education and clinical practice. These courses help students develop communication abilities, digital literacy, professional ethics, and an understanding of healthcare systems.

The curriculum includes foundation subjects such as communicative English, computer education, basic biomedical sciences, professional ethics, infection prevention and control, environmental awareness, and healthcare communication. These subjects aim to strengthen the learner's ability to function effectively within healthcare settings and interact appropriately with patients, caregivers, and healthcare professionals.

Foundation courses also support the development of interpersonal skills, documentation skills, teamwork, and professional behaviour, all essential for ophthalmic assistant practice.

1.9 Learning Methodologies

The curriculum incorporates multiple teaching and learning methodologies to facilitate competency development and effective learning. Traditional classroom teaching is supplemented with practical demonstrations, clinical postings, simulation-based training, case discussions, skill laboratory sessions, community outreach activities, seminars, assignments, and self-directed learning.

Clinical teaching forms a major component of the programme and includes supervised exposure in outpatient departments, refraction clinics, operation theatres, optical dispensing units, diagnostic ophthalmology services, and community eye screening programmes. Students are encouraged to participate actively in clinical procedures, patient interaction, documentation, and healthcare team activities under supervision.

The curriculum also promotes experiential learning, reflective practice, problem-solving approaches, and evidence-informed clinical understanding appropriate for diploma-level ophthalmic assistant training.

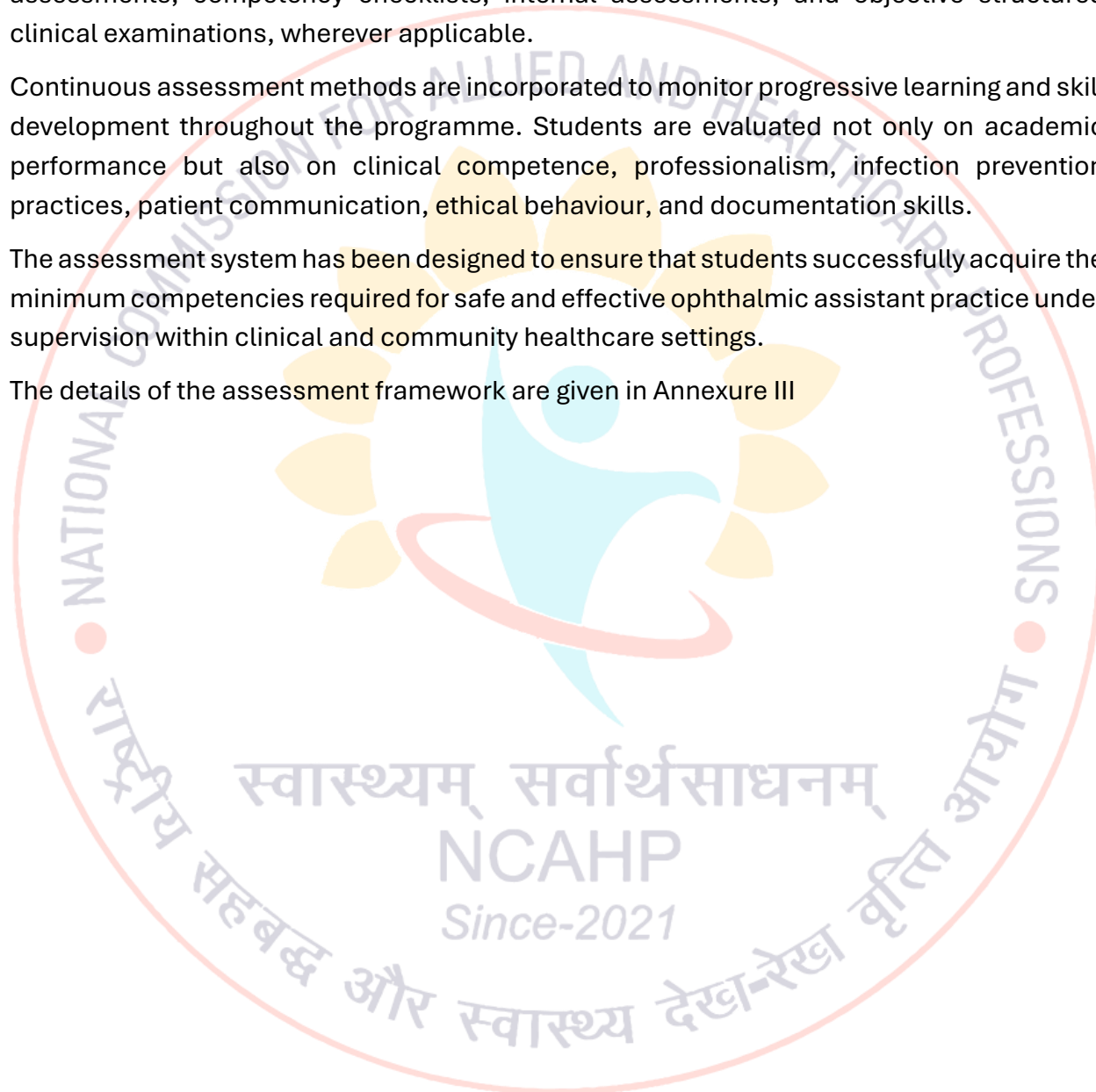
1.10 Assessment Methods

Assessment within the programme is competency-based, continuous, and structured to evaluate theoretical knowledge, practical skills, communication abilities, professional conduct, and clinical competencies. The assessment framework includes theory examinations, practical examinations, clinical evaluations, viva voce examinations, logbook assessments, competency checklists, internal assessments, and objective structured clinical examinations, wherever applicable.

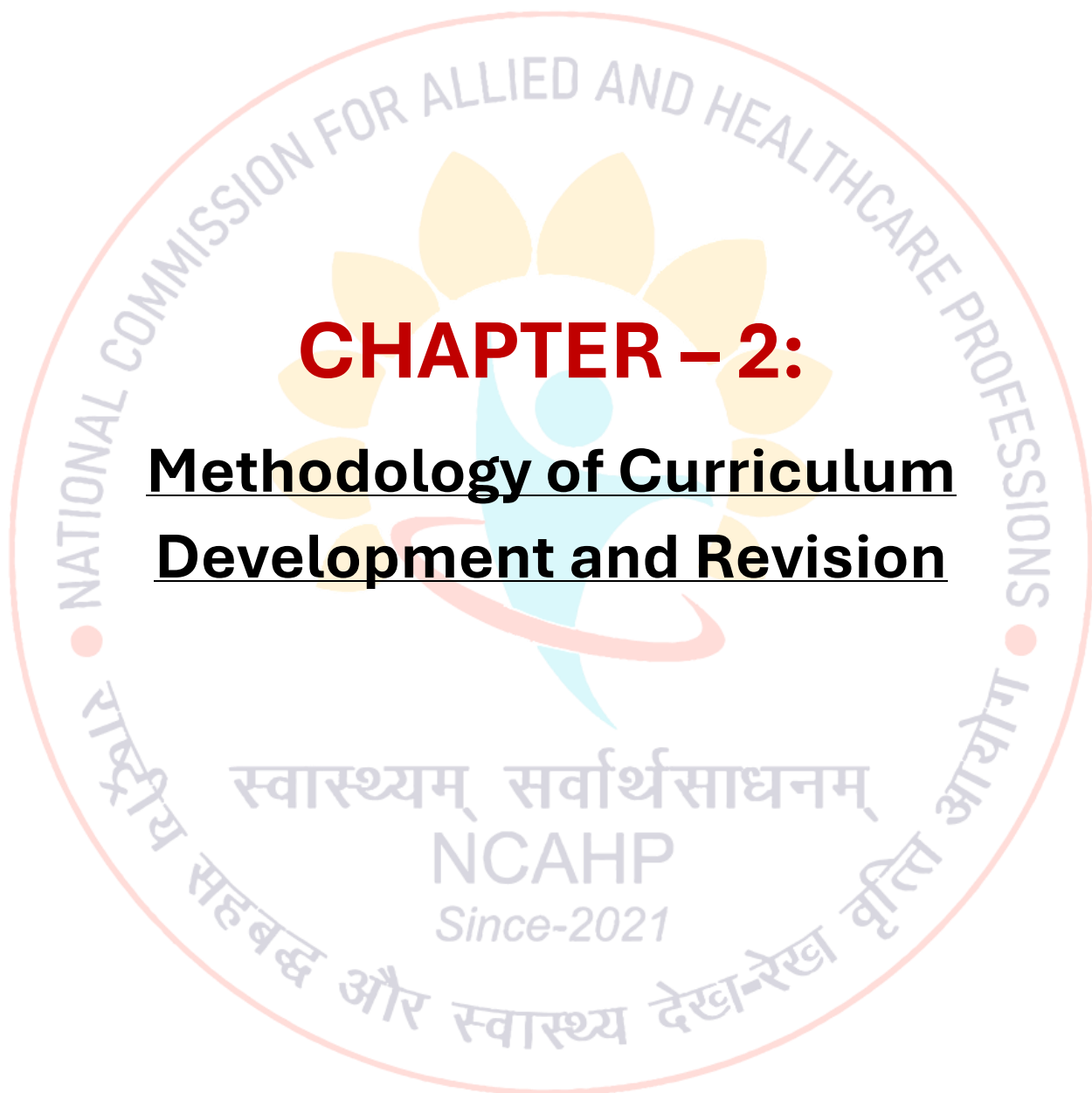
Continuous assessment methods are incorporated to monitor progressive learning and skill development throughout the programme. Students are evaluated not only on academic performance but also on clinical competence, professionalism, infection prevention practices, patient communication, ethical behaviour, and documentation skills.

The assessment system has been designed to ensure that students successfully acquire the minimum competencies required for safe and effective ophthalmic assistant practice under supervision within clinical and community healthcare settings.

The details of the assessment framework are given in Annexure III







CHAPTER – 2:

Methodology of Curriculum Development and Revision

2.1 Introduction

The curriculum for the Diploma in Ophthalmic Assistant (D.OA) programme was developed and revised through a systematic, competency-based, consultative, and evidence-informed process under the guidance of the Task Force constituted for curriculum preparation. The methodology adopted for curriculum development was aligned with the principles of competency-based allied and healthcare professional education, contemporary ophthalmic healthcare requirements, national healthcare priorities, and the recommendations of the National Commission for Allied and Healthcare Professions (NCAHP), Ministry of Health and Family Welfare (MoHFW), Government of India. The Task Force also ensured adherence to the curriculum submission checklist and formatting requirements prescribed for curriculum submission and revision.

The primary objective of the curriculum revision process was to create a standardised, clinically relevant, skill-oriented, and implementation-friendly programme capable of producing competent OA/VT who can effectively support ophthalmologists (as per ISCO Code 3256) in clinical, diagnostic, surgical assistance, community eye care, and ophthalmic support services. The curriculum was designed with the increasing burden of visual impairment, shortage of trained ophthalmic manpower, expansion of ophthalmic diagnostic technologies, and the growing need for structured allied ophthalmic healthcare education in India in mind.

The Task Force recognised that OA/VT constitute an important component of the eye healthcare workforce and play a significant role in patient care delivery under the supervision of qualified ophthalmologists (as per ISCO Code 3256). Therefore, the curriculum revision process aimed to strengthen competency-based training, improve practical exposure, and standardise educational outcomes across institutions offering the programme.

2.2 Constitution of the Task Force

The curriculum revision and development process was undertaken by a multidisciplinary Task Force comprising experts from ophthalmic sciences, optometry, ophthalmic techniques, allied healthcare education, clinical ophthalmology, academic administration, and healthcare training. The constitution of the Task Force was designed to ensure representation from both academic and clinical domains so that the curriculum would remain academically sound, clinically practical, and implementable across institutions.

The Task Force included optometrists involved in academics and clinical practice, professionals experienced in curriculum design and competency-based education, experts involved in community ophthalmology and public eye health programmes, and individuals familiar with national healthcare education standards and workforce requirements. The multidisciplinary nature of the committee enabled the incorporation of perspectives from teaching institutions, hospitals, clinical training centres, and community eye care systems.

The Task Force functioned through collaborative meetings, expert discussions, review sessions, comparative curriculum analysis, document verification, and iterative revision processes. Multiple rounds of review were conducted to ensure the curriculum remained balanced across theoretical knowledge, practical skill development, and clinical exposure.

2.3 Need Assessment and Rationale for Curriculum Revision

The curriculum revision process was initiated after recognising the growing need for a structured and standardised ophthalmic assistant training programme aligned with modern ophthalmic healthcare delivery systems and competency-based allied healthcare education. Significant changes in ophthalmic diagnostic technologies, increasing patient load in eye care institutions, expansion of community-based eye care programmes, and growing emphasis on patient safety and quality assurance necessitated revision of the existing curriculum framework.

The Task Force identified several factors contributing to the need for curriculum restructuring. Rapid advancements in ophthalmic instrumentation and diagnostic procedures required the inclusion of updated practical competencies and clinical training components. The increasing demand for trained ophthalmic support personnel in hospitals, eye care centres, optical establishments, vision screening programmes, and community ophthalmology services highlighted the need to produce clinically competent manpower capable of efficiently supporting ophthalmologists (as per ISCO Code 3256).

The Task Force also observed that many traditional training programmes were heavily theory-oriented and lacked structured competency assessment, supervised practical exposure, simulation-based learning, and standardised evaluation systems. Therefore, the revised curriculum was designed to place greater emphasis on practical skills, clinical competence, patient communication, infection prevention and control, ethical behaviour, and professional accountability.

Another important consideration during curriculum development was alignment with the NCAHP regulatory framework and the occupational classification relevant to OA/VT. The Task Force additionally noted that there is no separate ISCO-08 category specifically designated for vision technicians; therefore, the curriculum needed to be aligned with the broader ophthalmic assistant framework recognised within allied healthcare systems.

The programme was also academically aligned with the optometry curriculum to facilitate future lateral entry opportunities and academic progression pathways for diploma holders.

2.4 Review of Existing Curricula and Regulatory Frameworks

An extensive review of national and international curricula was undertaken during the curriculum revision process. The Task Force reviewed existing ophthalmic assistant programmes, diploma programmes in ophthalmic techniques, optometry curricula, competency-based healthcare education frameworks, and public health eye care models.

A comparative analysis was conducted on programme duration, semester systems, credit distribution, clinical exposure patterns, internship structures, faculty requirements, infrastructure standards, assessment systems, and competency frameworks. National regulatory recommendations and allied healthcare education principles were carefully studied to ensure that the revised curriculum remained compliant with emerging educational standards.

The review process also included an examination of modern competency-based educational methodologies adopted globally in allied health sciences. The Task Force studied how clinical competencies, practical skills, simulation-based learning, and workplace-based assessments were integrated into healthcare education programmes internationally. This review helped in strengthening the practical and clinical orientation of the revised curriculum.

2.5 Stakeholder Consultation Process

The curriculum revision process involved consultation with multiple stakeholders to ensure practical relevance, academic feasibility, and implementation suitability. Stakeholders included ophthalmologists, optometrists, OA/VT, ophthalmic technicians, academic institutions, clinical educators, eye hospitals, community eye care professionals, students, trainees, and healthcare administrators.

These consultations helped identify existing gaps in training systems, workforce expectations, patient care challenges, and practical skill deficiencies among trainees. Inputs from clinicians and educators highlighted the need for stronger clinical exposure in visual assessment, refraction assistance, ophthalmic diagnostics, OT assistance, sterilisation procedures, patient counselling, and community eye screening.

Suggestions received during consultations were carefully reviewed and incorporated wherever appropriate. The Task Force particularly emphasised stakeholder recommendations on competency-based assessment, supervised clinical postings, structured internship exposure, and the standardisation of practical training.

2.6 Competency-Based Curriculum Framework

The revised curriculum was designed using a competency-based educational approach with emphasis on knowledge, practical skills, professional behaviour, and patient-centred care. The competency framework aimed to develop cognitive, psychomotor, communication, ethical, and public health competencies required for ophthalmic assistant practice.

The curriculum was structured to ensure progressive acquisition of competencies through classroom teaching, practical laboratory sessions, clinical postings, skill laboratory training, simulation-based learning, community outreach activities, and supervised internship exposure. Competencies were mapped across semesters to facilitate gradual progression from foundational sciences to supervised clinical practice.

Particular emphasis was placed on procedural competencies, including visual acuity assessment, ophthalmic history taking, refraction assistance, optical dispensing, diagnostic procedure assistance, patient preparation, OT assistance, sterilisation techniques, infection control practices, and community screening procedures. The curriculum additionally incorporated communication skills, computer education, patient counselling, and professional ethics to support holistic professional development.

2.7 Curriculum Structure and Academic Design

The Task Force adopted a semester-based credit system integrating theory, practical training, clinical exposure, and internship components. The curriculum structure was developed after considering minimum learning hours, workload distribution, balance between theory and practical training, institutional feasibility, and competency development requirements.

The curriculum includes foundation sciences, ocular anatomy and physiology, optics and refraction, ophthalmic instrumentation, ophthalmic procedures, community eye care, communication skills, infection prevention and control, OT and sterilisation procedures, patient counselling, and clinical documentation. Practical exposure was integrated throughout the programme to ensure continuous clinical skill development.

Special care was taken to maintain alignment between the D.OA and optometry curricula to support future academic mobility and lateral-entry opportunities. Mathematics-heavy components were minimised while retaining clinically relevant optics and refraction concepts appropriate for diploma-level learners.

2.8 Assessment, Evaluation, and Supporting Documentation

The curriculum incorporated continuous, competency-based assessment to evaluate knowledge, procedural skills, communication ability, professional conduct, and clinical reasoning. Assessment methods included theory examinations, practical examinations, viva voce examinations, clinical evaluations, logbook assessment, skill competency assessment, and Objective Structured Clinical Examination (OSCE)-based approaches.

Separate passing criteria for theory and practical examinations were recommended to ensure adequate competency in both academic and clinical domains. Continuous internal assessment systems were incorporated to support progressive learning and regular feedback.

To facilitate implementation and standardisation, the Task Force additionally developed supporting annexures, including clinical logbook formats, competency assessment checklists, clinical posting schedules, examination blueprints, internship guidelines, faculty qualification norms, infrastructure requirements, practical competency records, OSCE formats, abbreviations, and suggested textbooks and learning resources.

Professional conduct details are given in Annexure XI

2.9 Integration of Ethics, Patient Safety, and National Healthcare Priorities

The revised curriculum strongly emphasises patient-centred care, ethics, professionalism, infection prevention, biomedical waste management, and safe clinical practices. Students are expected to develop responsible clinical behaviour and work collaboratively with concerned eye care professionals. The curriculum was also aligned with national healthcare priorities, including the prevention of avoidable blindness, community vision screening, strengthening ophthalmic support services, and expanding trained eye healthcare manpower in underserved areas. Community ophthalmology exposure and outreach activities were incorporated to strengthen public health orientation and improve understanding of population-based eye care delivery.

For further details on patient safety, please refer to Annexure XI.

2.10. Global mobility

The Diploma in Ophthalmic Assistant (D.OA) is commonly known as a Diploma ophthalmic assistant or vision technician. These diploma holders are eligible to pursue Bachelor of Optometry (B. Optom) programs, which offer a structured pathway for lateral entry, academic progression, and professional advancement. When D.OA diploma holders migrate to other countries, their qualification is often considered equivalent to similar ophthalmic technician, certified ophthalmic assistant, certified ophthalmic technician, diploma in ophthalmic sciences, OA/VT, or other equivalent diploma programs abroad.

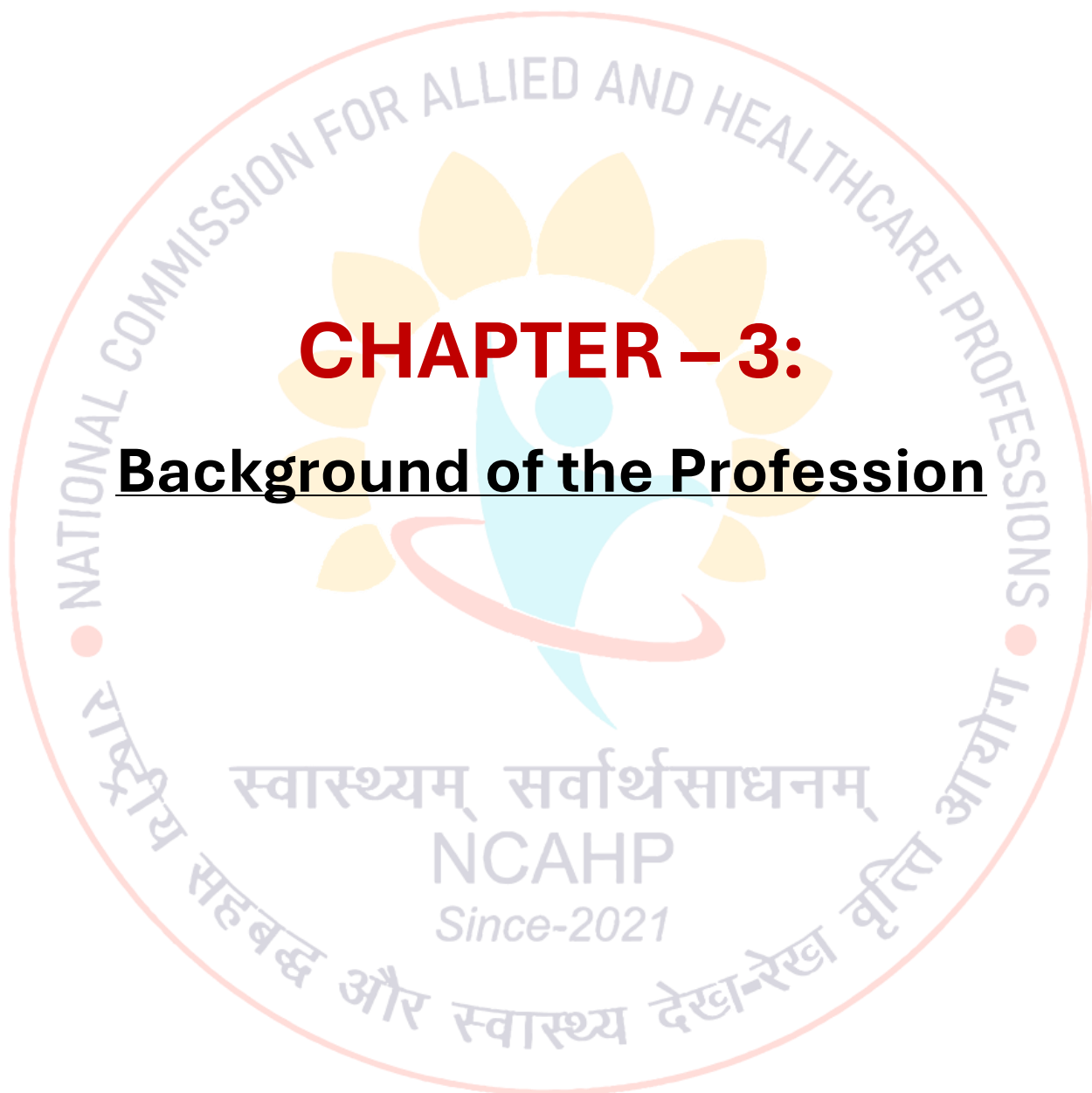
2.11 Conclusion

The Diploma in Ophthalmic Assistant curriculum has been developed through a comprehensive, consultative, competency-based, and evidence-informed methodology to create a standardised, clinically relevant ophthalmic assistant training programme. The curriculum balances academic knowledge, practical skill development, professional ethics, patient safety, and community eye care requirements while maintaining alignment with contemporary healthcare education standards and national regulatory expectations.

The Task Force believes that this curriculum will significantly strengthen ophthalmic support services, improve the quality of eye care delivery, and develop a competent ophthalmic assistant workforce capable of supporting ophthalmologists (as per ISCO Code 3256) in diverse healthcare settings across the country.







CHAPTER – 3:

Background of the Profession

3.1 Statement of Philosophy

The Diploma in Ophthalmic Assistant (D.OA) programme is based on the philosophy of competency-based allied healthcare education aimed at developing skilled, ethical, patient-centred, and professionally responsible ophthalmic support personnel. The programme emphasises integration of theoretical knowledge, practical skills, supervised clinical exposure, community eye care, and professional behaviour to support quality ophthalmic healthcare delivery.

3.2 About the Ophthalmic Assistant Profession

Ophthalmic Assistants are allied healthcare professionals trained to assist ophthalmologists (as per ISCO Code 3256) in ophthalmic clinical procedures, diagnostic services, patient care activities, operating theatre assistance, sterilisation procedures, optical dispensing, and community eye screening programmes. They function as important members of the ophthalmic healthcare team under appropriate professional supervision.

3.3 Need and Importance in Healthcare

The increasing burden of visual impairment, expansion of ophthalmic healthcare services, technological advancements in eye care, and shortage of trained ophthalmic manpower have created a growing need for qualified OA/VT. Ophthalmic Assistants contribute significantly toward improving accessibility, efficiency, and quality of eye care services in hospitals, eye care centres, and community settings.

3.4 Definition of Ophthalmic Assistant

An Ophthalmic Assistant is a trained allied healthcare professional who assists qualified ophthalmologists (as per ISCO Code 3256) in ophthalmic clinical, diagnostic, community, and surgical support services under supervision while maintaining professional ethics, patient safety, and infection prevention practices.

3.5 Recognition of Title and Qualification

The qualification awarded upon successful completion of the programme shall be “Diploma in Ophthalmic Assistant (D.OA).” The professional title recognised for the trained individual shall be “Ophthalmic Assistant.”

3.6 International Standard Classification of Occupations (ISCO) Alignment

The programme has been aligned with the International Standard Classification of Occupations (ISCO-08 Code 3256), which broadly includes clinical, medical, and ophthalmic support personnel. The curriculum framework has been structured to support standardisation and alignment with classifications of allied healthcare professionals. Programme and course outcomes are aligned with the ISCO, and further details are available in Annexure I.

Ophthalmic Assistants (ISCO 3256) perform basic clinical and administrative tasks to support patient care under the direct supervision of a medical practitioner or other health professional. According to ISCO 3256, the following tasks are performed by these ophthalmic assistants.

- a) Interviewing patients and their families to obtain information on their health status and medical history
- b) Assisting medical doctors and other health professionals to examine and treat patients, including measuring and recording vital signs, administering medications and performing routine clinical procedures.
- c) Getting patients ready for examination and treatment, including explaining procedures and showing them to the examination rooms
- d) Preparing and handling medical instruments and supplies, including sterilising instruments and disposing of contaminated supplies in accordance with safety procedures.
- e) Providing information to patients and families on health care topics, including medications prescribed by a medical doctor or other health professional.
- f) Providing prescription and drug refill information to pharmacies
- g) (Maintaining the cleanliness of patient waiting and examination rooms;
- h) Recording information on patients' medical history, diagnostic testing, treatment procedures and results, and other information in medical record-keeping systems.
- i) Scheduling appointments with patients, and preparing documentation required for billing, reporting and insurance purposes.

3.7 Scope of Practice

The scope of practice of OA/VT includes ophthalmic history recording, visual acuity assessment, refraction assistance, ophthalmic diagnostic assistance, optical dispensing, operation theatre assistance, sterilisation procedures, patient counselling, clinical documentation, community eye screening, and support in ophthalmic healthcare delivery under supervision.

3.8 Roles and Responsibilities

Ophthalmic Assistants are responsible for assisting with patient preparation, clinical procedures, ophthalmic diagnostics, maintenance of ophthalmic instruments, infection prevention practices, operating theatre protocols, patient communication, record maintenance, and community eye care activities, while ensuring patient safety and ethical practice.

3.9 Supervision Framework

Ophthalmic Assistants shall work under the supervision and guidance of qualified ophthalmologists (as per ISCO Code 3256), in accordance with institutional protocols and applicable professional regulations. Independent diagnosis and management beyond the defined scope of training shall not be undertaken by OA/VT.

3.10 Job Sectors

Qualified OA/VT may be employed in ophthalmic hospitals, eye care centres, multispecialty hospitals, vision centres, optical establishments, diagnostic centres, community eye care programmes, outreach screening camps, NGOs, academic institutions, and public health eye care services.

3.11 Career Opportunities

The programme provides opportunities for employment in clinical ophthalmology services, ophthalmic diagnostics, optical dispensing, operating theatre assistance, community ophthalmology, teleophthalmology/teleoptometry support services, and eye health screening programmes under supervision. With experience and additional training, diploma holders may progress into advanced ophthalmic support roles.

3.12 Education Pathways

Ophthalmic Assistants may pursue higher education and professional advancement through bridge programmes, degree programmes in allied healthcare sciences, optometry education, public health programmes, and specialised ophthalmic training courses, subject to institutional and regulatory norms.

3.13 Lateral Entry into Optometry

The curriculum has been designed with broad academic alignment to the Optometry programme to facilitate lateral entry opportunities into Bachelor of Optometry (B. Optom) programmes, subject to institutional policies, university regulations, and applicable competency and eligibility requirements.

3.14 Entry Requirements

Admission into the D.OA programme requires successful completion of the 10+2 or equivalent examination with Physics, Chemistry, Biology/Mathematics, with a minimum of 50% marks, subjects from a recognised board or institution as per prevailing regulatory norms. Admission on the basis of Senior Secondary (10+2) Merit.

3.15 Duration of the Course

The total duration of the programme shall be 2 years, comprising three academic semesters followed by a semester IV of 6-month compulsory supervised internship.

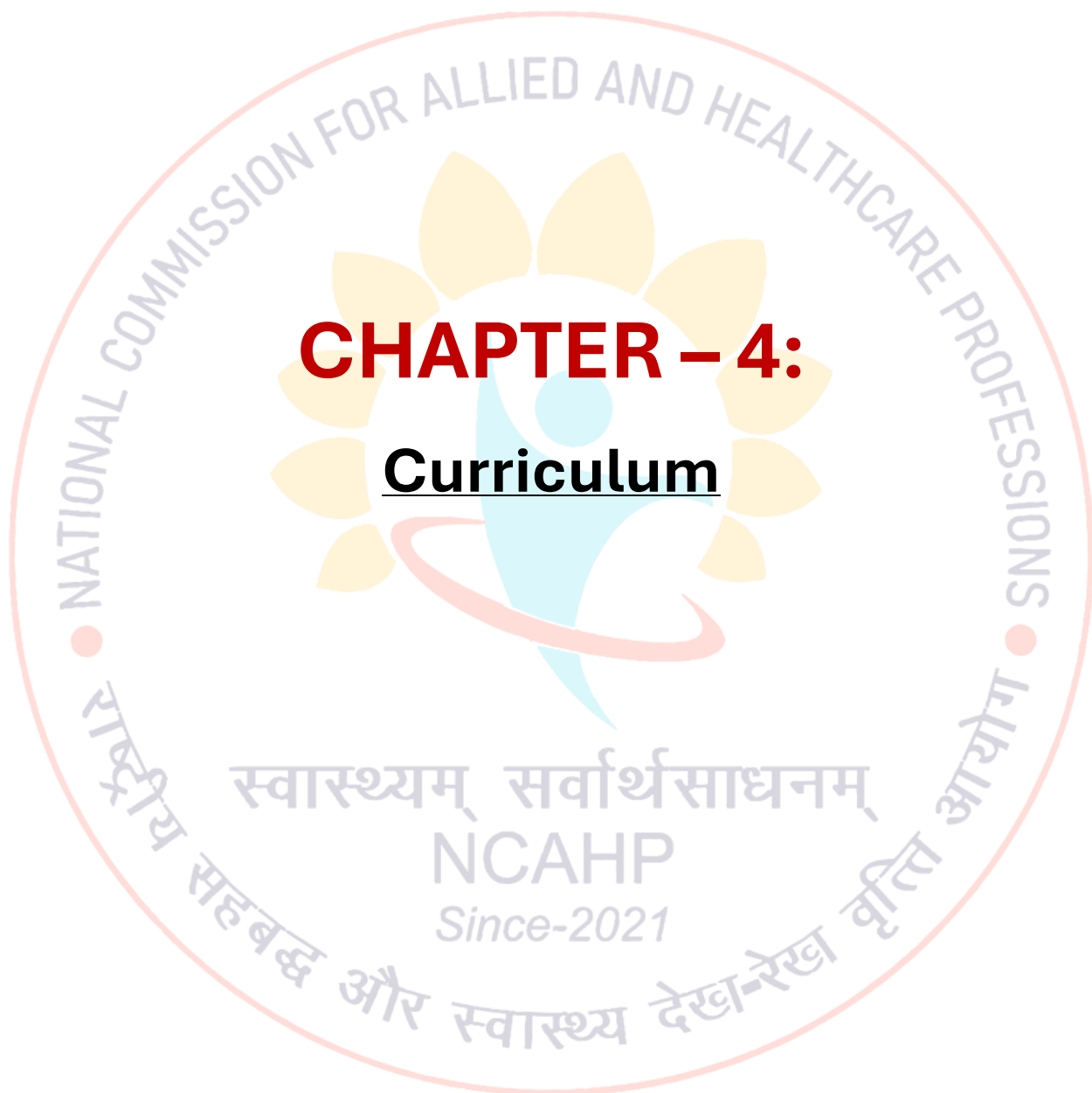
3.16 Exit Examination

Students shall be required to successfully complete theory examinations, practical examinations, clinical competency assessments, logbook requirements, and internship obligations as prescribed under the programme regulations to qualify for the award of the diploma.

3.17 Teaching Faculty and Infrastructure

The programme shall preferably be conducted by qualified and experienced faculty, including NCAHP-registered optometrists, ophthalmologists, subject experts as per the subject requirement, and trained other allied healthcare educators, etc. Institutions offering the programme should maintain adequate infrastructure, including classrooms, skills laboratories, ophthalmic clinical facilities, equipment, library resources, and supervised clinical training facilities, necessary for competency-based ophthalmic assistant education, whether affiliated with government or not-for-profit eye hospitals, as authorised by the NCAHP.





CHAPTER – 4: **Curriculum**

4.1 Background

The Diploma in Ophthalmic Assistant (D.OA) curriculum has been developed as a competency-based allied healthcare education programme intended to prepare skilled ophthalmic support personnel capable of assisting ophthalmologists (as per ISCO Code 3256) in various clinical, diagnostic, surgical assistance, community, and rehabilitative eye care services. The curriculum has been structured in accordance with the principles of competency-based education promoted under the National Commission for Allied and Healthcare Professions (NCAHP), Ministry of Health and Family Welfare (MoHFW), Government of India.

The curriculum was designed after careful review of the approved Optometry curriculum framework, existing ophthalmic assistant training programmes, national healthcare priorities, and the evolving requirements of contemporary ophthalmic healthcare systems. The increasing prevalence of visual impairment, cataract, refractive errors, diabetic retinopathy, glaucoma, and other ocular disorders has significantly increased the demand for trained ophthalmic support personnel who can function efficiently within multidisciplinary eye healthcare teams.

Rapid advancements in ophthalmic diagnostics, imaging systems, surgical techniques, digital health technologies, teleophthalmology, and community eye care programmes have further emphasised the need for structured and standardised ophthalmic assistant education. The curriculum, therefore, integrates theoretical learning, practical training, supervised clinical exposure, community outreach activities, and internship-based competency development to ensure the production of clinically competent and professionally responsible OA/VT.

The curriculum additionally recognises the importance of community eye care and preventive ophthalmology in India. Ophthalmic Assistants are expected to contribute toward vision screening programmes, blindness prevention initiatives, referral systems, patient education, and public health eye care services under supervision. Therefore, community ophthalmology, communication skills, ethics, infection prevention, and patient safety have been incorporated as important components of the programme.

Special consideration was also given to academic progression and future educational mobility. The curriculum has been developed with broad alignment with the Optometry curriculum framework, so that students completing the diploma programme may be eligible for lateral academic progression into Bachelor of Optometry programmes, subject to institutional and regulatory requirements.

The programme emphasises competency development in ophthalmic clinical assistance, ophthalmic diagnostics, optical dispensing, operation theatre assistance, sterilisation protocols, patient counselling, record maintenance, biomedical waste management, and safe clinical practices. The overall objective is to create a competent ophthalmic support workforce capable of strengthening ophthalmic healthcare delivery systems in hospitals, eye care centres, community settings, and public health programmes.

4.2 Diploma in Ophthalmic Assistant (D.OA)

Introduction

The Diploma in Ophthalmic Assistant (D.OA) is a competency-based programme designed to prepare ophthalmic support personnel for supervised clinical practice in ophthalmic healthcare settings. The programme provides students with foundational biomedical knowledge, ophthalmic sciences education, practical clinical skills, and supervised patient care experience necessary to support ophthalmologists (as per ISCO Code 3256) in ophthalmic healthcare delivery.

The programme integrates theory, practical training, skill laboratory exposure, clinical postings, simulation-based learning, community eye care activities, and internship training. Emphasis is placed on practical competency acquisition, ethical healthcare practice, infection prevention and control, communication skills, patient safety, and community orientation.

The curriculum has been designed to ensure that learners progressively acquire competencies in ophthalmic assistance procedures and develop confidence in functioning within healthcare teams under professional supervision.

Medium of Instruction

The medium of instruction for the programme shall ordinarily be English. However, institutions may also utilise regional languages for practical teaching, clinical interactions, patient communication, demonstrations, and student support, as needed.

Students are expected to develop adequate communication skills in both professional English and local languages to facilitate effective interaction with patients, caregivers, healthcare professionals, and community members.

Attendance

Students admitted to the programme shall be required to maintain a minimum prescribed attendance in theory classes, practical sessions, clinical postings, community activities, and internship training as per institutional and regulatory requirements.

A minimum of 75% attendance in theory, and 80% in practical and clinical components, is required for eligibility to appear in university or final examinations. Institutions may prescribe additional attendance requirements for skill laboratory training, community postings, and internship completion.

Students failing to meet minimum attendance requirements may be required to undergo additional training, repeat postings, or fulfil other academic requirements as determined by the institution.

Assessment System

The programme follows a competency-based assessment framework that evaluates theoretical knowledge, practical skills, communication abilities, professional behaviour, ethical conduct, and clinical competencies.

Assessment methods include theory examinations, practical examinations, viva voce examinations, internal assessments, logbook evaluation, clinical competency assessments, skill demonstrations, and objective structured clinical examinations, wherever applicable. Continuous assessment methods are integrated throughout the programme to facilitate progressive learning and regular performance monitoring.

Practical competency evaluation forms an essential component of the programme. Students are required to demonstrate proficiency in visual assessment procedures, ophthalmic assistance techniques, infection prevention practices, patient communication, clinical documentation, and supervised procedural skills.

Separate passing criteria for theory and practical examinations shall ordinarily be maintained to ensure adequate competency in both academic and clinical domains. The assessment scheme is detailed under Annexure III.

Internship

The programme includes a compulsory supervised internship intended to provide hands-on clinical exposure, practical skill consolidation, professional development, and workplace-based learning.

During the internship, students shall undergo supervised postings in ophthalmology outpatient departments, operation theatres, optical dispensing units, and community eye care programmes. Internship training enables students to integrate theoretical learning with real-world clinical practice and develop professional confidence under supervision.

Students shall be required to maintain internship logbooks, competency records, attendance records, and procedural documentation during the internship period. Successful completion of an internship shall be mandatory for the award of the diploma qualification.

Students will be provided a stipend during the internship, the amount to be decided by the respective State Allied and Healthcare Council (State A&HP Council) or the National Commission for Allied and Healthcare Professions in states/union territories where State AHP Councils do not exist.

Credits and Hours Distribution

The curriculum follows a semester- and credit-based educational structure, integrating theory instruction, practical training, clinical exposure, self-directed learning, and internship components.

Credits have been assigned based on classroom teaching hours, practical laboratory sessions, clinical postings, skill laboratory exposure, and supervised internship activities. The total programme hours have been structured to ensure adequate competency development in accordance with allied healthcare education principles and clinical training requirements.

The curriculum includes balanced allocation of hours for foundation sciences, ophthalmic sciences, clinical ophthalmology support procedures, community eye care, communication skills, professional ethics, and practical competency development.

The total credit and hour distribution has also been broadly aligned with the Optometry curriculum framework to support academic progression and educational mapping. Credit distribution and hour mapping are detailed under Annexure II.

Sl. No.	Year	Sem No	Credits	Hours per semester		
				Lectures	Practicals	Total
1	First	Semester 1	20	210	180	390
2		Semester 2	20	150	300	450
3	Second	Semester 3	23	105	480	585
4		Semester 4	24	0	720	720
		Grand Total	87	465	1680	2145

Academic Component	Credit Equivalence
1 Hour Theory Teaching per Week/Semester	1 Credit
2 Hours Practical/Laboratory/Clinical posting per Week/Semester	1 Credit

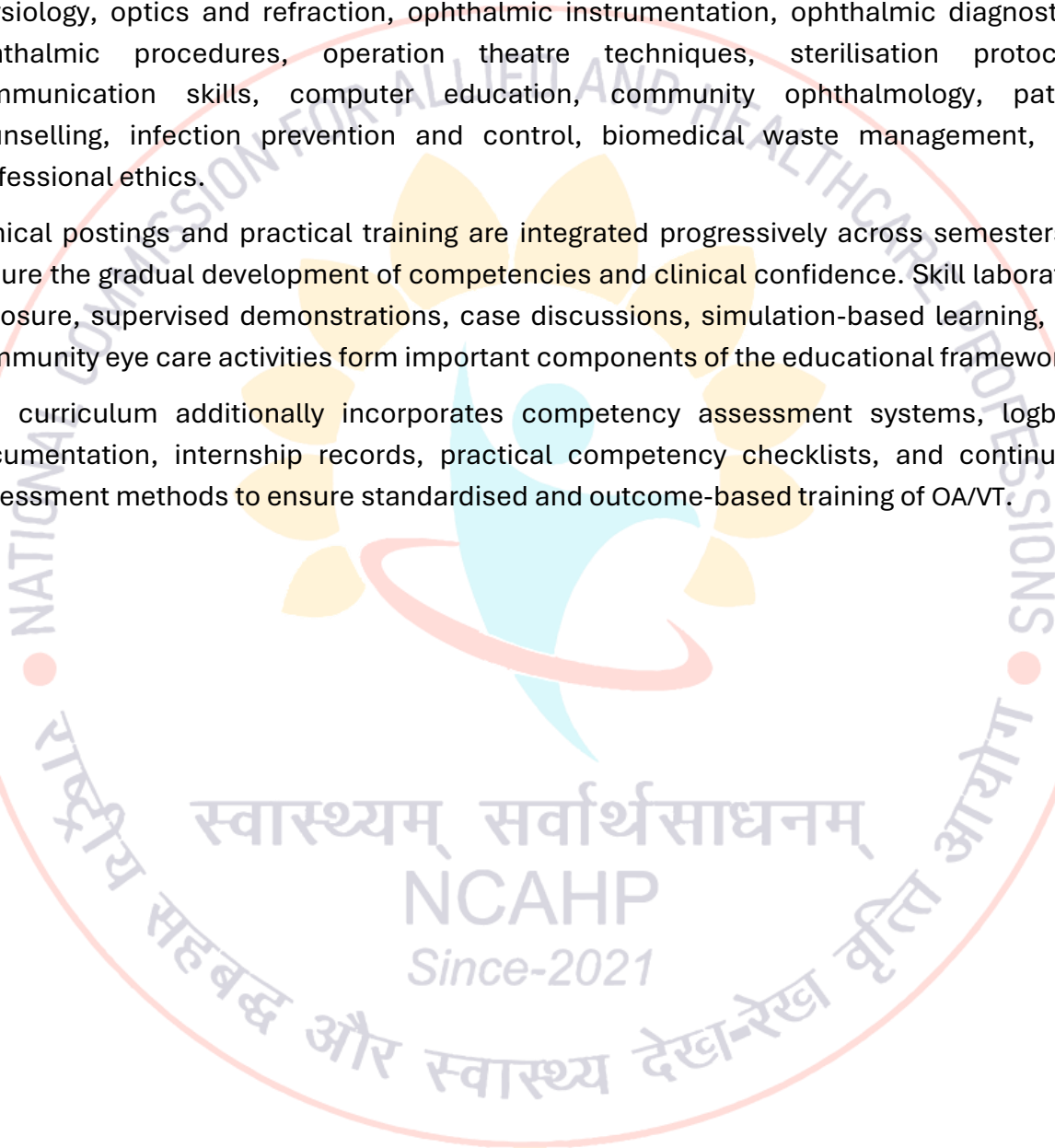
Curriculum Outline

The curriculum has been organised into semester-wise modules integrating foundational biomedical sciences, ophthalmic sciences, practical skill training, supervised clinical exposure, and internship-based learning experiences.

The programme includes subjects related to anatomy and physiology, ocular anatomy and physiology, optics and refraction, ophthalmic instrumentation, ophthalmic diagnostics, ophthalmic procedures, operation theatre techniques, sterilisation protocols, communication skills, computer education, community ophthalmology, patient counselling, infection prevention and control, biomedical waste management, and professional ethics.

Clinical postings and practical training are integrated progressively across semesters to ensure the gradual development of competencies and clinical confidence. Skill laboratory exposure, supervised demonstrations, case discussions, simulation-based learning, and community eye care activities form important components of the educational framework.

The curriculum additionally incorporates competency assessment systems, logbook documentation, internship records, practical competency checklists, and continuous assessment methods to ensure standardised and outcome-based training of OA/VT.



Semester-Wise Curriculum

Semester I

Introduction

The first semester of the Diploma in Ophthalmic Assistant (D.OA) programme is designed to provide students with foundational knowledge in biomedical sciences, communication skills, healthcare principles, and basic ophthalmic sciences necessary for subsequent clinical and practical training. The semester introduces students to the structure and function of the human body, basic ocular sciences, professional ethics, healthcare communication, computer education, and infection prevention practices.

The first semester also focuses on developing professional behaviour, communication competencies, basic clinical understanding, and orientation toward ophthalmic healthcare systems. Practical exposure during the semester aims to familiarise students with healthcare environments, basic ophthalmic instruments, visual assessment procedures, and elementary patient interaction skills.

The semester forms the academic and professional foundation upon which advanced ophthalmic sciences, clinical competencies, and supervised ophthalmic assistance procedures are developed in subsequent semesters.

Subjects Included in Semester I

Sl. No.	Subject Title	Credits	Hours per semester		
			Lectures	Practicals	Total
D.OA 101	General and Ocular Anatomy	4	60	0	60
D.OA 102	General and Ocular Physiology	4	60	0	60
D.OA 103	Physical & Geometrical optics	3	45	0	45
D.OA 104	Computer Education and Digital Health Basics	3	15	60	75
D.OA 105	Professional Ethics, Communication, and Patient Safety	3	30	30	60
D.OA 106	Clinical Techniques – Lab I	3	0	90	90
Total		20	210	180	390

First Semester

1. GENERAL & OCULAR ANATOMY

Subject Code: D.OA 101

Introduction

This subject provides students with a fundamental understanding of the structure and functions of the human body and ocular structures relevant to ophthalmic healthcare practice. Knowledge of anatomy and physiology is essential for understanding ocular diseases, systemic disorders affecting the eye, patient assessment, and safe clinical practices.

The subject introduces students to basic concepts of cells, tissues, organ systems, nervous system, cardiovascular system, respiratory system, endocrine system, and musculoskeletal system with emphasis on clinical relevance to ophthalmic sciences.

Course Objectives

The student should be able to understand:

Upon completion of the course, the student shall be able to:

- Describe the basic structure and functions of the human body
- Explain major organ systems relevant to ophthalmic healthcare
- Understand neuroanatomy related to vision
- Correlate systemic diseases with ocular health
- Structures and connections between various parts of the central nervous system and the eye, and their clinical relevance.

Course Content

Unit 1: Introduction to Human Body & Musculoskeletal System:

Introduction to anatomy and physiology, levels of organisation, cells and tissues, body systems, anatomical terminology, planes and positions. Structure and functions of bones, joints, muscles, skeletal organisation, major muscles of the head and neck, movements and coordination.

Unit 2: Nervous System, Cardiovascular, Respiratory Systems and Endocrine and Digestive Systems

Organisation of the central and peripheral nervous systems, cranial nerves with emphasis on the optic nerve and ocular motor nerves, reflexes, and the autonomic nervous system. Heart structure and circulation; blood composition and functions; respiratory organs and gaseous exchange; systemic conditions relevant to eye care. Endocrine glands and hormones; diabetes mellitus and ocular relevance; digestive system overview; nutrition and vitamins related to ocular health.

Competency Based Curriculum for “Diploma in Ophthalmic Assistant (D.OA)”

(Intellectual property of National Commission for Allied and Healthcare Professions, Ministry of Health and Family Welfare)

Unit 3: Embryology and Development of the Eye & Anatomy of the Eyeball

- Development of the eyeball
- Development of the lens and retina
- Congenital ocular anomalies
- Shape, size, and dimensions of the eyeball
- Coats/layers of eyeball: Fibrous; Vascular; Nervous

Unit 4: Ocular Fluids

- Tear film
- Aqueous humour
- Vitreous Humour

Unit 5: Anterior Segment of the Eye:

- Ocular adnexa
- Eyelids
- Conjunctiva
- Cornea
- Iris
- Uveal tract
- Crystalline lens

Unit 6: Posterior Segment of the Eye

- Retina
- Optic nerve
- Pupil Pathway
- Visual Pathway

First Semester

2. GENERAL & OCULAR PHYSIOLOGY

Subject Code: D.OA 102

Introduction

This subject provides detailed knowledge of the anatomy and physiology of the human body, the ocular system, and the visual system. Understanding ocular structure and function forms the basis for ophthalmic clinical procedures, ophthalmic diagnostics, and recognition of ocular disorders.

Course Objectives

The student should be able to:

- Identify ocular structures and adnexa
- Explain the physiology of vision
- Understand visual pathways and ocular functions
- Relate ocular anatomy to ophthalmic procedures

COURSE PLAN:

Unit 1: Blood and Body Fluids

- Composition and functions of blood
- Plasma and serum
- Red blood cells
- White blood cells
- Platelets
- Haemoglobin
- Blood groups
- Coagulation of blood
- Immunity basics

Unit 2: Physiology

- Endocrine systems
- Nervous systems

Unit 3: Protective mechanisms of the eye

- Ocular movements, Saccades
- protective mechanisms
- Eyelids & extra ocular muscles
- Lacrimal secretions
- Extrinsic and Intrinsic muscles and their actions

Unit 4: Physiology of the eye structures

- Cornea
- Aqueous humour & vitreous: Intraocular pressure, Iris and pupil
- Crystalline lens and accommodation – presbyopia, Mechanism of accommodation
- Retina – structure and functions

Unit 5: Physiology of vision

- Vision: Sensation, Photochemistry,
- The visual stimulus, refractive errors, Visual acuity, Vernier acuity and the principle of measurement,
- Visual perception – Binocular vision, stereoscopic vision, optical illusions
- Colour vision & defects

Unit 6: Practical Components

Students shall be trained in:

- Identification of ocular structures using models and charts
- Observation of ophthalmic instruments
- Demonstration of pupillary reactions
- Basic ocular examination orientation
- Identification of external ocular structures



First Semester

3. PHYSICAL & GEOMETRICAL OPTICS

Subject Code: D.OA 103

Introduction

This course helps students understand the behaviour and properties of light. The subject covers principles such as reflection, refraction, lenses, prisms, and image formation, which are essential in vision care and ophthalmic instruments. Knowledge of optics enables students to understand refraction and reflection of light, optical corrections, and the scientific basis of eye examination procedures used in ophthalmic practice.

Course Objectives

The student should be able to:

- Explain the principles of physical and geometric optics related to vision and eye care.
- Describe the behaviour of light and image formation
- Understand the optical principles of mirrors, lenses, and prisms
- Apply optical concepts in ophthalmic clinical practice, diagnostic procedures, and optical management of vision correction.

COURSE PLAN:

Unit 1: Nature and Properties of Light

- Nature of light
- Electromagnetic spectrum
- Wave theory and particle theory
- Wavelength, frequency, amplitude, and phase
- Illumination and photometry

Unit 2: Interference and Diffraction

- Principle of interference
- Constructive and destructive interference
- Principle of diffraction
- Diffraction patterns & Diffraction through apertures
- Resolving power of optical instruments and eye
- Clinical relevance of diffraction

Unit 3: Polarisation, Dispersion, Scattering, and LASERS

- Polarized light
- Methods of polarization
- Polaroid filters
- Birefringence
- Clinical applications of polarized light
- Dispersion of light
- Chromatic aberration
- Scattering of light
- Tyndall effect
- Fluorescence and phosphorescence
- Principles of lasers
- Types of lasers
- Ophthalmic applications of lasers

Unit 4: Fundamentals of Geometric Optics

- Rectilinear propagation of light
- Rays and wavefronts
- Optical axis
- Vergence
- Sign conventions
- Cardinal points

Unit 5: Reflection & Refraction of Light

- Laws of reflection
- Concave and convex mirrors
- Focal length and radius of curvature
- Image formation by mirrors
- Critical angle and Total internal reflection
- Laws of refraction
- Refractive index
- Snell's law
- Refraction through plane surfaces & spherical surfaces

First Semester

4. COMPUTER EDUCATION AND DIGITAL HEALTH BASICS

Subject Code: D.OA 104

Introduction

Computer literacy and digital health awareness are increasingly important in healthcare systems. This subject introduces students to computer applications relevant to ophthalmic healthcare practice.

Course Objectives

The student should be able to:

- Demonstrate basic computer skills, including the use of operating systems, word processing, spreadsheets, Excel, presentations, internet browsing, and email communication.
- Apply digital health concepts in ophthalmic practice, including the use of electronic medical records, teleophthalmology, data management, and ethical use of digital technologies in healthcare.

COURSE PLAN

Unit 1: Introduction to Computers

- History and generations of computers
- Basic computer components: hardware and software
- Input and output devices
- Operating systems and file management
- Computer applications in healthcare

Unit 2: Office Applications and Documentation

- Microsoft Word or equivalent word processing
- Creating and formatting documents
- Microsoft Excel basics
- Data entry and simple calculations
- Microsoft PowerPoint presentations

Unit 3: Internet and Digital Communication

- Basics of internet and web browsing
- Search engines and online learning resources
- Email creation and communication
- Video conferencing platforms
- Cyber safety and responsible internet use

Unit 4: Digital Health and Telemedicine Basics

- Introduction to digital health
- Electronic Health Records (EHR)
- Hospital Information Systems (HIS)
- Telemedicine and remote patient care
- Digital imaging in ophthalmology

Unit 5: Data Management and Professional Ethics

- Patient data entry and record maintenance
- Data privacy and confidentiality
- Ethical use of digital information
- Introduction to healthcare documentation standards
- Professional conduct in digital communication



First Semester

5. PROFESSIONAL ETHICS, COMMUNICATION, AND PATIENT SAFETY

Subject Code: D.OA 105

Introduction

Professional ethics and patient safety form essential components of healthcare practice. Communication skills are essential for patient interaction, teamwork, counselling, documentation, and professional healthcare delivery. It focuses on improving English listening, speaking, reading, and writing skills while enhancing professional communication in healthcare settings. This subject introduces students to ethical principles, safe clinical practices, and improves professional communication abilities.

Course Objectives

The student should be able to:

- Demonstrate professional ethics and ethical behaviour in ophthalmic practice, including patient confidentiality, professional responsibility, teamwork, and respectful patient care.
- Apply professional communication skills in ophthalmic practice, including patient interaction, counselling, teamwork, documentation, and workplace communication.

COURSE PLAN

Professional ethics, code of conduct, patient rights, and informed consent basics., Use appropriate medical and professional terminology, improve listening, reading, and presentation skills, and demonstrate professional behaviour and interpersonal communication in clinical settings.

Unit 1: Introduction to Professional Ethics

- Meaning and importance of ethics
- Principles of healthcare ethics
- Professional conduct and responsibilities
- Code of ethics for healthcare professionals

Unit 2: Patient Rights

- Patient rights and responsibilities
- Patient confidentiality and privacy
- Informed consent
- Respectful and compassionate patient care
- Cultural sensitivity and empathy

Unit 3: Legal and Ethical Issues in Healthcare

- Ethical dilemmas in clinical practice
- Negligence and malpractice
- Documentation and record keeping

Unit 4: Basics of Communicative English

- Importance of communication
- Elements and types of communication
- Barriers to communication
- Basic grammar and sentence construction
- Vocabulary development

Unit 5: Professional Communication in Healthcare

- Communication with patients and caregivers
- Empathy and patient counselling
- Professional ethics and etiquette
- Communication in clinical and hospital environments
- Handling difficult situations and complaints

Unit 6: Presentation and Interview Skills

- Public speaking basics
- Presentation techniques
- Resume/CV preparation
- Interview skills
- Workplace communication

First Semester

6. CLINICAL TECHNIQUES LAB – I

Subject Code: D.OA 106

Introduction

This component provides early supervised exposure to clinical environments and basic ophthalmic procedures. It provides essential practical skills required in basic clinical practice under supervision. Through supervised laboratory sessions, students develop the accuracy, confidence, and professional behaviour necessary for effective patient care and future clinical responsibilities in ophthalmic healthcare settings.

Practical Training Areas

Students shall receive supervised orientation and training in:

- Hospital and OPD orientation
- Patient registration systems
- Basic history taking and ability to identify referral department areas from history
- Visual acuity assessment
- Chart: Snellen Vision testing, Pocket Vision Screener, Near vision testing (N chart)
- Near vision testing
- Instrument identification
- Patient positioning

Suggested Teaching-Learning Methods

Teaching-learning activities during Semester I may include:

- Didactic lectures
- Demonstrations
- Practical laboratory sessions
- Small group discussions
- Skill laboratory training
- Audio-visual teaching
- Clinical observation
- Simulation-based demonstrations
- Self-directed learning assignments

Assessment Methods

Assessment during Semester I shall include:

- Internal assessment tests
- Practical examinations
- Viva voce examinations
- Assignments and presentations
- Clinical skill demonstrations
- Attendance and professional behaviour assessment
- Logbook evaluation where applicable

Students are encouraged to utilise standard textbooks, clinical manuals, digital learning resources, ophthalmic models, audiovisual demonstrations, and supervised clinical exposure for strengthening conceptual understanding and practical competencies during Semester I training.



SEMESTER II

Introduction

The second semester of the Diploma in Ophthalmic Assistant (D.OA) programme focuses on strengthening the student's understanding of ophthalmic sciences, optics, refraction assistance, ophthalmic instruments, microbiology, pharmacology, and basic clinical procedures. Building upon the foundational knowledge acquired during Semester I, the second semester introduces students to applied ophthalmic concepts and supervised practical competencies necessary for clinical ophthalmic assistance.

The semester emphasizes integration of theoretical knowledge with practical skill development and supervised clinical exposure. Students are progressively introduced to ophthalmic examination procedures, basic refraction assistance, ophthalmic diagnostics, patient preparation techniques, sterilization protocols, and ophthalmic instrument handling.

The semester also aims to improve students' communication skills, professional behaviour, documentation practices, infection control awareness, and patient interaction abilities in clinical settings.

Subjects Included in Semester II

Sl. No.	Subject Title	Credits	Hours per semester		
			Lectures	Practicals	Total
D.OA 201	Optics of the Eye and Ophthalmic Optics	4	30	60	90
D.OA 202	Ocular Diseases	2	30	0	30
D.OA 203	General & Ocular Biochemistry	2	30	0	30
D.OA 204	Microbiology, Pathology, and Pharmacology	2	30	0	30
D.OA 205	Public health and community eye care	2	30	0	30
D.OA 206	Clinical Techniques Lab – II	4	0	120	120
D.OA 207	Clinical postings – I	4	0	120	120
	Total	20	150	300	450

SECOND SEMESTER

1. OPTICS OF THE EYE AND OPHTHALMIC OPTICS

Subject Code: D.OA 201

Introduction

This subject introduces students to the fundamental principles of ophthalmic optics and refraction relevant to ophthalmic assistant practice. The course emphasizes practical understanding of light, lenses, refractive errors, and ophthalmic optical devices used in clinical ophthalmology and optometry settings.

The subject is designed to provide clinically relevant optics knowledge without excessive mathematical complexity, while meeting diploma-level competency requirements.

Course Objectives

The student should be able to:

- Explain the basic principles of optics and the optical system of the human eye.
- Identify and describe refractive errors and their optical correction using ophthalmic lenses and prisms.
- Identify and select different types of ophthalmic lenses, frames, and optical materials.
- Perform basic spectacle measurements and fitting procedures.

COURSE PLAN

Unit 1. Optics of the Human Eye

- Optical components of the eye
- Reduced eye model
- Emmetropia
- Accommodation and presbyopia
- Visual axis and pupillary axis

Unit 2. Refractive Errors

- Myopia
- Hyperopia
- Astigmatism
- Presbyopia
- Aphakia
- Anisometropia
- Available Optical correction of refractive errors

Unit 3. Ophthalmic Lenses

- Types of ophthalmic lenses- Spherical, Cylinder
- Convex and Concave Lenses
- Cylindrical lenses
- Bifocals, Multifocal lenses
- Lens designs: Spherical, Aspheric, Atoric, Lenticular and Myopia control lenses
- Understanding Lens prescriptions: Anisometropia, Antimetropia
- Transposition of lenses: +/- Cylinder, Optic cross, two-cylinder format
- Management of Squint with Prisms
- Near vision and Intermediate vision spectacles
- Absorptive lenses: Tint, Photochromatic and Polarisers

Unit 4. Spectacle Frames

- Parts of spectacle frames
- Types of spectacle frames
- Frame materials
- Frame measurements and mounting parameters
- Frame selection based on facial features and patient needs

Unit 5. Spectacle Dispensing and Fitting

- Pupillary distance measurement: Manual method, Pupillometry
- Segment height measurement
- Standard alignment of spectacles
- Verification of spectacles
- Handling optical tools and equipment
- Spectacle repairs and adjustments
- Lens cleaning and maintenance

Practical Components

Students shall be trained in:

- Handling trial lens sets
- Lens identification
- Neutralisation of lenses
- Lens power measurement
- Spectacle fitting and adjustment
- Pupillary distance measurements
- Frame and lens selection, and fitting
- Repair works

SECOND SEMESTER

2. OCULAR DISEASES

Subject Code: D.OA 202

Introduction

This subject provides students with an introductory understanding of common ocular diseases and ophthalmic conditions encountered in clinical practice. The emphasis is on recognition, patient preparation, the importance of referral, and ophthalmic assistance rather than independent diagnosis or treatment.

Course Objectives

The student should be able to:

- Recognise common ocular disorders based on signs and symptoms.
- Understand symptoms and signs of eye diseases
- Assist ophthalmologists during patient evaluation
- Understand referral and emergency protocols
 - Differentiate between conditions requiring routine and urgent referral.
 - Identify ocular emergencies requiring immediate attention.
 - Understand the role of the Ophthalmic Assistant in patient triage and referral.
 - Counsel patients regarding referral and follow-up.

Course Plan

Unit 1: Diseases of Eyelids and Conjunctiva

- Blepharitis,
- Styne
- Chalazion
- Conjunctivitis
- Allergic eye diseases

Unit 2: Corneal and Lens Disorders

- Corneal ulcer causes and basic management principles
- Keratitis causes and basic management principles
- Cataract causes and basic management principles
- Ectatic disorders, causes and basic management principles
- Dry eye disease, causes and basic management principles

Unit 3: Posterior segment diseases

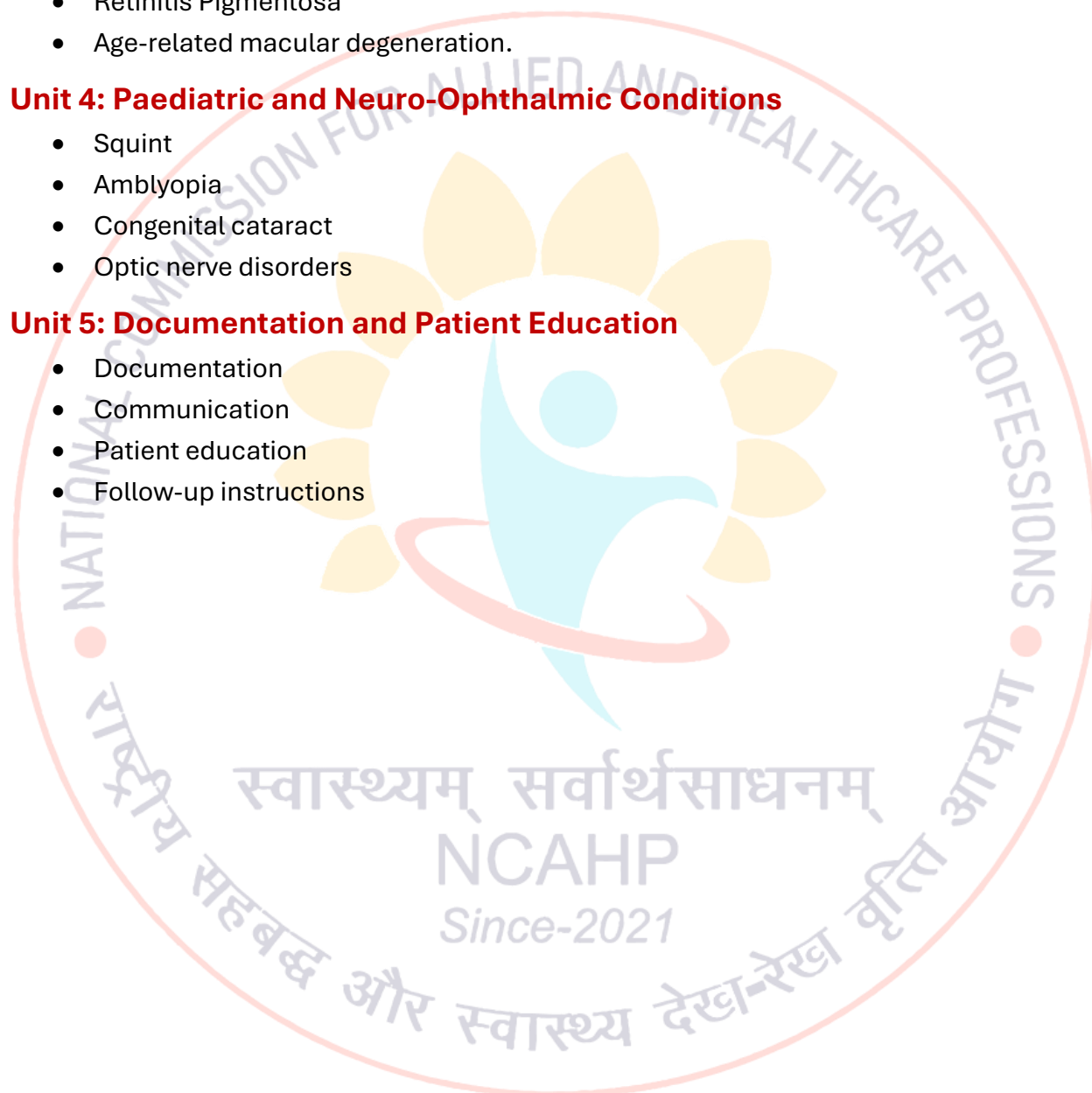
- Glaucoma
- Diabetic retinopathy
- Hypertensive retinopathy
- Retinal detachment
- Retinitis Pigmentosa
- Age-related macular degeneration.

Unit 4: Paediatric and Neuro-Ophthalmic Conditions

- Squint
- Amblyopia
- Congenital cataract
- Optic nerve disorders

Unit 5: Documentation and Patient Education

- Documentation
- Communication
- Patient education
- Follow-up instructions



SECOND SEMESTER

3. GENERAL & OCULAR BIOCHEMISTRY

Subject Code: D.OA 203

Introduction

Course Objectives

The student should be able to:

Describe the structure, function, and metabolism of major biomolecules and explain their role in normal body functions and ocular health.

Explain the biochemical composition and metabolic processes of ocular structures, including the cornea, lens, retina, tear film, aqueous humour, and vitreous humour, with emphasis on oxidative stress, antioxidants, and the role of vitamins in maintaining eye health.

Course Plan

Unit 1: Introduction to Biochemistry

- Scope and importance of biochemistry
- Cell structure and biochemical organization

Unit 2: Biomolecules

- Carbohydrates
- Proteins
- Lipids
- Enzymes
- Vitamins and minerals
- Enzymes

Unit 3: Metabolism

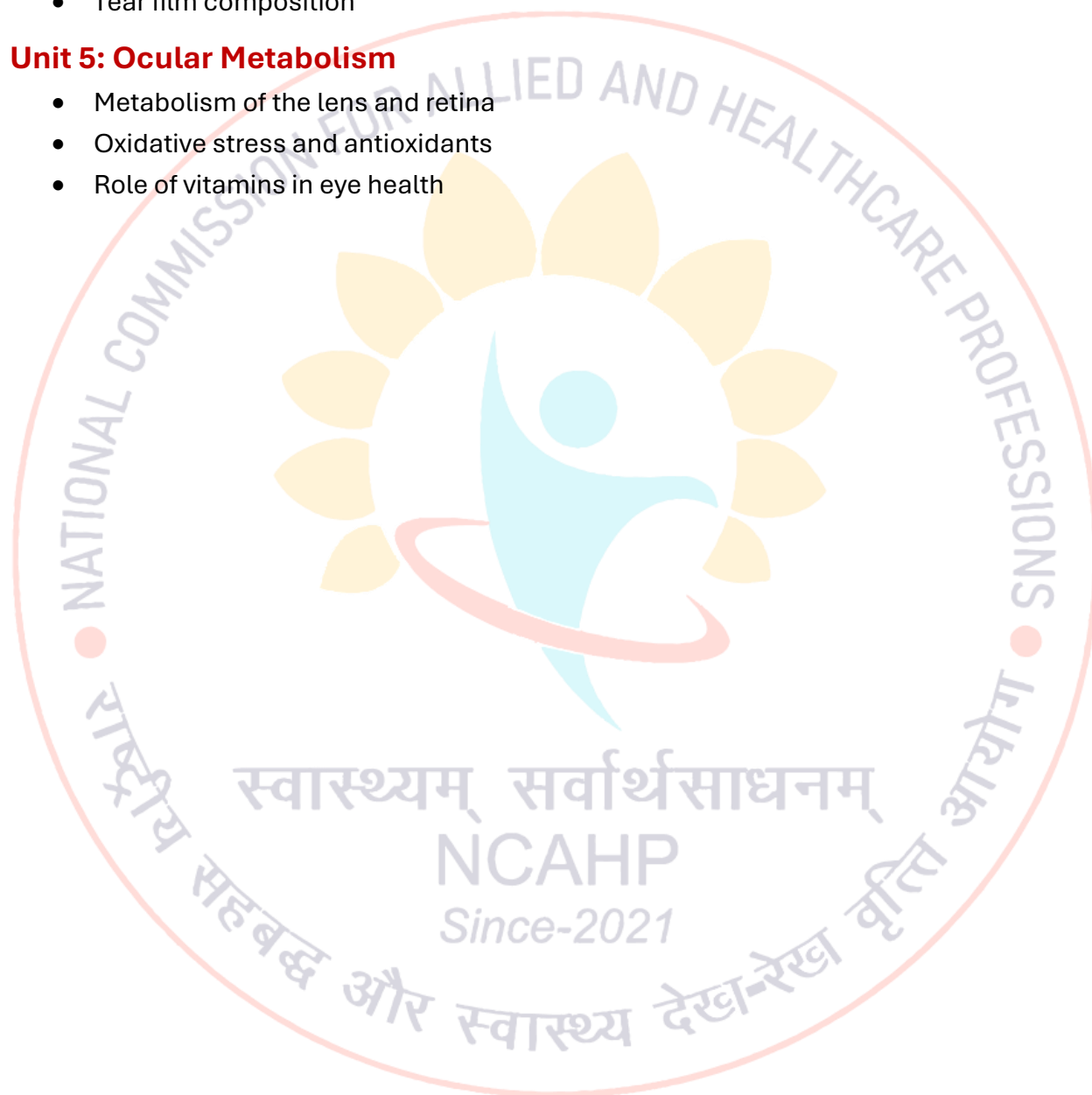
- Digestion and absorption
- Carbohydrate metabolism
- Protein metabolism
- Lipid metabolism

Unit 4: Biochemistry of Ocular Structures

- Cornea
- Lens
- Retina and visual pathway
- Aqueous humour and vitreous humour
- Tear film composition

Unit 5: Ocular Metabolism

- Metabolism of the lens and retina
- Oxidative stress and antioxidants
- Role of vitamins in eye health



SECOND SEMESTER

4. MICROBIOLOGY, PATHOLOGY & PHARMACOLOGY

Subject Code: D.OA 204

Introduction

This subject introduces basic microbiology, ophthalmic pharmacology, sterilisation, and infection prevention concepts relevant to ophthalmic practice.

Course Objectives

The student should be able to:

- Understand basic microorganisms, disease processes, and principles of drug action relevant to eye care.
- Apply knowledge of microbiology, pathology, and pharmacology in ophthalmic clinical practice.

Course Plan

Unit 1: Microbiology

- Introduction to microbiology
- Classification of microorganisms:
 - Bacteria
 - Viruses
 - Fungi
 - Parasites
- Sources and transmission of infection

Unit 2: Pathology

- Introduction to pathology
- Cell injury and inflammation
- Healing and repair
- Degeneration and necrosis

Unit 3: Pharmacology

- Drug classification and routes of administration
- Pharmacokinetics and pharmacodynamics
- Dosage forms used in ophthalmology
- Ophthalmic drugs:
 - Antibiotics, Antifungal, and Antiviral
 - Anti-inflammatory drugs
 - Mydriatics and cycloplegics
 - Antiglaucoma drugs
 - Lubricants and artificial tears
 - Local anaesthetics
- Drug storage and handling
- Adverse drug reactions and drug safety



SECOND SEMESTER

5. PUBLIC HEALTH AND COMMUNITY EYE CARE

Subject Code D.OA 205

Introduction

This subject introduces students to public health ophthalmology, blindness prevention programmes, and community eye care services.

Course Objectives

The student should be able to:

- Understand community eye care concepts
- Participate in vision screening programmes
- Assist in blindness prevention activities
- Understand referral systems and public awareness strategies

Course Plan

Unit 1: Introduction to Public Health

- Definition and scope of public health
- Concepts of community health
- Determinants of health
- Levels of disease prevention
- Health promotion and health education

Unit 2: Epidemiology of Blindness and Visual Impairment

- Definitions of blindness and visual impairment
- Magnitude and causes of blindness and ocular diseases
- National and global eye health initiatives

Unit 3: Community Eye Care

- Principles of community ophthalmology
- Primary eye care
- Vision screening programs
- School eye health programs
- Eye camps and outreach activities
- Referral systems in eye care

Prevention and Health Education

- Prevention of blindness
- Eye safety and injury prevention
- Community awareness and counselling
- IEC (Information, Education, and Communication) activities

Practical Components

Students shall participate in:

- Community screening demonstrations
- Awareness activities
- Vision screening practice
- Referral documentation
- Health education exercises



SECOND SEMESTER

6. CLINICAL TECHNIQUES LAB – II

Subject Code D.OA 206

Introduction

This module is a continuation of the Clinical Techniques Lab -I from Semester I. This component focuses on strengthening supervised practical competencies and clinical exposure in ophthalmic healthcare settings.

Practical Training Areas

Students shall receive supervised training in:

- Torchlight examination of the eye
- Basic external eye examination
- Basic facial and periocular examination
- Recognition of ocular emergencies and red flag signs
- Referral protocols
- Clinical documentation and maintenance of patient records

Suggested Teaching-Learning Resources

Students are encouraged to utilise standard ophthalmology and optics textbooks, ophthalmic instrument manuals, digital learning resources, clinical demonstrations, skill laboratories, and supervised clinical exposure for strengthening conceptual understanding and practical competency development during Semester II training.

Assessment Methods

Assessment during Semester II shall include:

- Internal assessment tests
- Practical examinations
- Viva voce examinations
- Assignments and presentations
- Clinical skill demonstrations
- Attendance and professional behaviour assessment
- Logbook evaluation where applicable

Students are encouraged to utilise standard textbooks, clinical manuals, digital learning resources, ophthalmic models, audiovisual demonstrations, and supervised clinical exposure for strengthening conceptual understanding and practical competencies during Semester I training.

SECOND SEMESTER

7. CLINICAL POSTINGS – I

Subject Code D.OA 207

Introduction

This course is designed to provide students with supervised clinical exposure in ophthalmic healthcare settings. The course enables students to observe and participate in basic patient care activities, ophthalmic examinations, clinical documentation, and hospital procedures. Through practical training, students develop communication skills, professional ethics, clinical discipline, and hands-on competencies essential for ophthalmic assistance practice. A detailed clinical posting, competencies, and assessments are given in Annexure IV.

Course Objectives

By the end of the course, students will be able to:

- Understand the workflow and functioning of ophthalmic clinics and hospitals.
- Demonstrate proper patient interaction and communication skills.
- Assist in basic ophthalmic examination procedures.
- Follow infection control and patient safety measures.
- Maintain clinical records and documentation accurately.
- Develop professional behaviour and teamwork skills in healthcare settings.

Course Plan

Posting 1: Outpatient Department (OPD)

- Patient registration and record handling
- Patient flow management
- Assisting during preliminary examinations
- Communication with patients and attendants

Posting 2: Visual Assessment Unit

- Visual acuity assessment
- Near vision testing
- Colour vision screening
- Basic refraction observation

Posting 3: Ophthalmic Examination Assistance

- Assisting in torchlight examination
- Instrument identification and handling
- Preparation of examination rooms
- Patient positioning techniques

Posting 4: Sterilisation and Infection Control

- Hand hygiene procedures
- Cleaning and maintenance of instruments
- Biomedical waste disposal
- Standard infection control protocols

Posting 5: Clinical Documentation and Digital Records

- Case sheet maintenance
- Basic electronic medical record entry
- Appointment scheduling systems
- Confidentiality and ethical documentation practices

Teaching and Training Methods

- Supervised clinical postings
- Demonstration and return demonstration
- Observation-based learning
- Bedside and chair-side teaching
- Case discussions and logbook maintenance

Assessment Methods

- Clinical performance evaluation
- Practical demonstrations
- Attendance and logbook assessment
- Viva voce
- Internal assessment

Semester III

Introduction

The third semester of the Diploma in Ophthalmic Assistant (D.OA) programme focuses on advanced ophthalmic assistance procedures, clinical ophthalmology support services, operation theatre assistance, ophthalmic diagnostics, contact lens basics, low vision care, and supervised clinical competency development. The semester builds on the foundational and intermediate knowledge acquired in the first two semesters and places greater emphasis on practical skills, patient care, and workplace-based learning.

Students are progressively trained to function more actively within ophthalmic healthcare settings under supervision. The semester aims to improve proficiency in ophthalmic examination assistance, operation theatre protocols, diagnostic procedures, sterilization techniques, patient counselling, clinical documentation, and community ophthalmology activities.

Special emphasis is placed on supervised clinical participation, patient safety, ethical conduct, communication skills, and infection prevention practices necessary for ophthalmic assistant practice.

Subjects Included in Semester III

Sl. No.	Subject Title	Credits	Hours per semester		
			Lectures	Practicals	Total
D.OA 301	Operation Theatre Techniques and Sterilisation Procedures	3	45	0	45
D.OA 302	Emergency Eye Care & First Aid	2	30	0	30
D.OA 303	Hospital Inventory and Supplies	3	15	60	75
D.OA 304	Teleophthalmology & Home care	2	15	30	45
D.OA 305	Clinical postings – II	6	0	180	180
D.OA 306	Operation Theatre Postings – I	7	0	210	210
Total		23	105	480	585

THIRD SEMESTER

1. OPERATING THEATRE TECHNIQUES AND STERILISATION PROCEDURES

Subject Code D.OA 301

Introduction

This subject provides detailed training in ophthalmic operating theatre protocols, sterilisation procedures, patient preparation, infection control, and OT assistance. The subject is intended to develop the competencies necessary to assist ophthalmologists during ophthalmic surgical procedures while maintaining patient safety and aseptic standards.

Course Objectives

The student should be able to:

- Apply aseptic techniques and infection control measures in surgical settings.
- Perform sterilisation and disinfection procedures for ophthalmic instruments and equipment.
- Assist safely and effectively during ophthalmic surgical procedures.

Course Plan

Unit 1: Introduction to Operation Theatre

- Structure and layout of operation theatre
- Zones of operation theatre
- Operation theatre protocols
- Roles and responsibilities of OT personnel
- Operation theatre ethics and safety

Unit 2: Aseptic Techniques and Infection Control

- Surgical hand washing and scrubbing
- Use of personal protective equipment (PPE)
- Sterile techniques
- Prevention of cross-infection
- Biomedical waste management in OT

Unit 3: Sterilisation and Disinfection

- Principles of sterilisation and disinfection
- Cleaning and decontamination of instruments
- Methods of sterilisation:
 - Autoclaving
 - Dry heat sterilisation
 - Chemical sterilisation
- Disinfection methods and agents
- Storage and handling of sterile instruments

Unit 4: Ophthalmic Surgical Instruments and Equipment

- Identification and handling of ophthalmic surgical instruments
- Care and maintenance of instruments
- Microscope and OT equipment handling
- Instrument tray preparation

Unit 5: Assistance in Ophthalmic Surgeries

- OT assistance techniques
- Preparation for ophthalmic surgeries
- Preparation for minor ophthalmic procedures

Practical Components

Students shall undergo supervised training in:

- OT gowning and gloving
- Sterile tray preparation
- Instrument identification
- Patient preparation for surgery
- Sterilisation procedures
- OT cleaning protocols
- Biomedical waste management

THIRD SEMESTER

2. EMERGENCY EYE CARE & FIRST AID

Subject Code D.OA 302

Introduction

Course Objectives

The student should be able to:

- Identify common ocular emergencies and vision-threatening conditions.
- Assist in emergency ophthalmic procedures. Provide immediate first aid for eye injuries and trauma.
- Perform basic patient triage and Counsel patients regarding emergency eye care and referral.

Course Plan

Unit 1: Introduction to Emergency Eye Care

- Definition and scope of ophthalmic emergencies
- Role of the ophthalmic assistant in emergency care
- Triage in ophthalmology
- Vision-threatening emergencies
- Principles of primary eye care
- Emergency referral systems
- Basic life support awareness & Medical emergencies
- Universal precautions and infection control

Unit 2: Ocular Trauma

- Classification of ocular injuries
- Mechanical injuries
 - Blunt trauma
 - Penetrating injuries
 - Perforating injuries
- Lid injuries and adnexal trauma
- Orbital trauma
- Sports-related eye injuries

Unit 3: Chemical and Thermal Injuries

- Chemical burns (acid and alkali)
- Thermal injuries
- Radiation injuries
- Emergency management protocols

Competency Based Curriculum for “**Diploma in Ophthalmic Assistant (D.OA)**”

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Unit 4: Foreign Bodies and Corneal Emergencies

- Conjunctival foreign body
- Corneal foreign body
- Corneal abrasion
- Corneal ulcer
- Contact lens-related emergencies

Unit 5: Acute Painful Eye Conditions & Sudden Loss of Vision

- Acute conjunctivitis
- Acute glaucoma
- Uveitis
- Endophthalmitis
- Sudden painful red eye
- Causes of sudden vision loss
- Retinal detachment
- Vitreous haemorrhage
- Central retinal artery occlusion
- Optic neuritis
- Stroke-related visual loss

Practical Components

Students shall undergo supervised training in:

- Emergency clinics

THIRD SEMESTER

3. HOSPITAL INVENTORY AND SUPPLIES

Subject Code D.OA 303

Introduction

This subject focuses on Hospital inventory and supplies, preparing students not only for clinical assistance roles but also for managing them in areas such as optical outlets, community eye care services, vision centres, and ophthalmic practices.

Course Objectives

Upon successful completion of the course, students will be able to:

- Explain the importance of inventory management in hospitals and eye care facilities.
- Identify different categories of ophthalmic supplies and equipment.
- Demonstrate proper storage and handling of ophthalmic consumables.
- Apply inventory control methods to maintain optimal stock levels.
- Perform basic documentation related to inventory management.
- Understand procurement procedures and quality assurance of supplies.
- Recognise the role of inventory management in patient safety and hospital efficiency.

Course Plan

Unit 1: Introduction to Hospital Inventory Management

- Definition of hospital inventory
- Importance of inventory in healthcare
- Objectives of inventory management
- Functions of the inventory department
- Types of hospital inventories
- Challenges in inventory management

Unit 2: Ophthalmic Supplies and Equipment

- Consumables
- Surgical supplies
- Diagnostic equipment
- Sterile supplies

Unit 3: Inventory and Optical Store Management

- Inventory control principles
- Stock maintenance
- Ordering and procurement
- Storage of ophthalmic drugs and consumables
- Optical dispensing workflow
- Spectacle frame and lens inventory
- Vendor management

Unit 4: Financial and Billing

- Basics of hospital billing
- Cash handling
- Insurance and reimbursement basics
- Preparation of invoices and receipts

Unit 5: Inventory Control Techniques

- Stock management principles
- Stock levels: Minimum, maximum stocks, buffer stock
- First in first out & first expiry first out
- Stock registers
- Physical stock verification

Unit 6: Storage and Handling of Ophthalmic Supplies

- Storage conditions
- Temperature-sensitive items
- Cold chain management
- Humidity control
- Sterile storage
- Labelling requirements
- Shelf-life management
- Expiry date monitoring
- Handling fragile equipment

Practical Components

Students shall receive supervised training in:

- Identification of inventory items in an ophthalmology department
- Identification and classification of ophthalmic supplies
- Preparing stock registers & Using FIFO and FEFO methods
- Organising an ophthalmic supply room
- OT preparation procedures
- Sterile gowning and gloving
- Instrument arrangement
- Surgical assistance observation
- Patient preparation
- OT cleaning and sterilisation
- Biomedical waste disposal



THIRD SEMESTER

4. TELEOPHTHALMOLOGY & HOME CARE

Subject Code D.OA 304

Introduction

This subject focuses on telemedicine and home eyecare by improving access to quality eye health care for people in rural and remote areas. It covers the use of digital communication technologies to provide consultation, diagnosis, follow-up, and patient education without requiring direct hospital visits. Home eye care focuses on delivering basic vision assessment, monitoring, rehabilitation, and support services at the patient's residence. Telemedicine and home eye care have become important components of community ophthalmology and patient-centred healthcare systems.

Course Objectives

The student should be able to:

- Operate digital ophthalmic imaging and communication systems.
- Provide home-based eye care support and patient education.
- Maintain electronic medical records and teleconsultation documentation.
- Identify patients requiring urgent referral to secondary/tertiary eye care.

Course Content

Unit 1: Introduction to Telemedicine

- Definition and scope of teleophthalmology & teleoptometry
- Evolution of remote eye care
- Models of teleophthalmology
- Role of ophthalmic assistant in tele-eye care
- Advantages and limitations - Teleophthalmology & teleoptometry
- Teleophthalmology in rural and community eye care

Unit 2: Digital Ophthalmic Equipment and Technologies

- Smartphone-based ophthalmic tools
- Internet and cloud-based ophthalmic platforms
- Maintenance and calibration of teleophthalmology devices

Unit 3: Teleconsultation Procedures and Patient Management

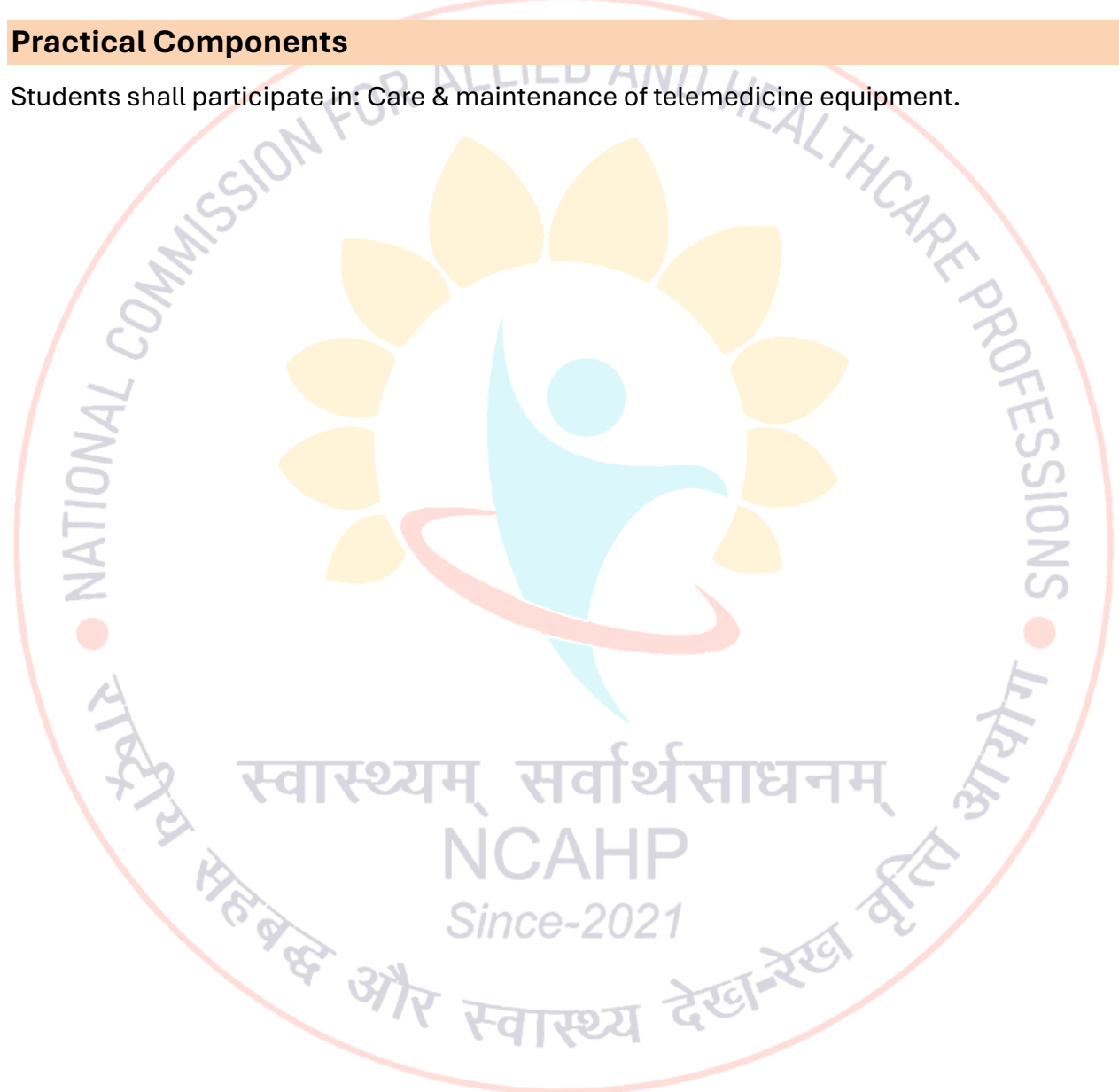
- Patient registration and scheduling
- Electronic medical records (EMR)
- History taking during teleconsultation
- Virtual patient communication

Unit 4: Home-Based Eye Care

- Home care principles
- Postoperative home care
- Elderly eye care—basic eye testing
- Home safety for visually impaired patients
- Counselling caregivers and family members

Practical Components

Students shall participate in: Care & maintenance of telemedicine equipment.



THIRD SEMESTER

5. CLINICAL POSTINGS – II

Subject Code D.OA 305

Introduction

This course provides students with clinical exposure in ophthalmic practice through supervised hands-on training in various speciality areas. The course focuses on developing practical competencies in refraction, diagnostic procedures, patient counselling, ophthalmic investigations, and clinical assistance. Students gain experience in professional patient care, clinical documentation, teamwork, and the use of ophthalmic instruments and technologies.

Course Objectives

By the end of the course, students will be able to:

- Assist in basic ophthalmic diagnostic procedures.
- Demonstrate autorefraction, subjective refraction and vision assessment techniques.
- Assist ophthalmologists during clinical examinations and procedures.
- Maintain infection control and patient safety standards.
- Communicate effectively with patients and healthcare teams.
- Record and manage clinical findings accurately and ethically.

COURSE PLAN

Posting 1: Refraction Clinic

- Visual acuity assessment
- subjective refraction observation
- Trial frame and trial lens handling
- Assist in autorefraction
- Near vision testing

Posting 2: Diagnostic and Investigation Unit

- Keratometry observation
- Auto-refractometer usage
- A-scan and B-scan awareness
- Tonometry assistance
- Visual field-testing observation

Posting 3: Slit Lamp and Clinical Examination Assistance

- Slit lamp setup and maintenance
- Assisting in anterior segment examination
- Patient preparation for examination
- Instrument handling and cleaning

Posting 4: Minor Procedure and Emergency Care Unit

- Preparation of procedure trays
- Assisting in minor ophthalmic procedures
- Emergency patient handling
- Basic first aid and eye care support

Posting 5: Optical and Patient Counselling Unit

- Spectacle lens and frame basics
- Patient counselling for spectacle use
- Communication regarding eye care instructions
- Follow-up and patient education

Teaching and Training Methods

- Clinical rotations
- Demonstration and supervised practice
- Case discussions
- Chair-side teaching
- Observation and return demonstration
- Logbook documentation

Assessment Methods

- Clinical skill evaluation
- Practical demonstrations
- Logbook assessment
- Viva voce examination
- Internal assessments and attendance

The competency assessment checklist and logbook documentation are given under Annexure V & VI.

THIRD SEMESTER

6. OPERATION THEATRE POSTINGS – I

Subject Code D.OA 306

Introduction

This course provides students with supervised exposure to ophthalmic operating theatre procedures and practices. The course focuses on operating theatre protocols, sterilization techniques, instrument handling, patient preparation, and assistance during ophthalmic surgeries. Students develop practical skills, discipline, teamwork, and professional ethics necessary for maintaining safety and efficiency in surgical environments.

Course Objectives

By the end of the course, students will be able to:

- Understand the organisation and workflow of an ophthalmic operation theatre.
- Demonstrate knowledge of sterilisation and aseptic techniques.
- Identify and handle common ophthalmic surgical instruments.
- Assist in patient preparation for ophthalmic surgeries.
- Follow the operation theatre safety and infection control protocols.

COURSE PLAN

Posting 1: Introduction to Operation Theatre Setup

- Layout and zones of operation theatre
- Theatre protocols and discipline
- Roles of operation theatre personnel
- Surgical workflow observation

Posting 2: Sterilisation and Aseptic Techniques

- Principles of sterilisation and disinfection
- Autoclaving procedures
- Preparation of sterile trays and packs
- Surgical hand washing and gowning
- Biomedical waste management

Posting 3: Ophthalmic Surgical Instruments

- Identification of ophthalmic instruments
- Handling and care of microsurgical instruments
- Instrument cleaning and maintenance
- Arrangement of surgical trays

Posting 4: Pre-operative Patient Preparation

- Patient identification and counselling
- Preparation of the surgical area
- Instillation of eye drops
- Positioning and transfer of patients
- Documentation and consent verification

Posting 5: Assistance During Ophthalmic Procedures

- Observation of cataract and minor eye surgeries
- Assisting the surgical team under supervision
- Maintaining sterile field during procedures
- Post-procedure cleaning and arrangement

Practical Competencies

Students are expected to:

- Follow operation theatre etiquette and discipline
- Perform surgical hand washing and gowning
- Prepare sterile instrument trays
- Assist in patient preparation
- Maintain aseptic conditions
- Handle surgical instruments safely and responsibly

Teaching and Training Methods

- Supervised operating theatre postings
- Demonstration and return demonstration
- Surgical observation sessions
- Hands-on instrument handling practice
- Case discussions and logbook maintenance

Assessment Methods

- Practical skill evaluation
- Observation reports and logbook assessment
- Viva voce examination
- Attendance and professional conduct assessment
- Internal practical examination

Semester IV – Internship

Introduction

The internship programme constitutes an essential and compulsory component of the Diploma in Ophthalmic Assistant (D.OA) curriculum. The internship is intended to provide extensive hands-on clinical exposure, supervised practical training, professional skill development, and workplace-based learning experiences within real ophthalmic healthcare settings.

During the internship period, students are expected to integrate the theoretical knowledge, practical competencies, ethical principles, communication abilities, and clinical skills acquired during the academic semesters into supervised clinical practice. The internship serves as the transition phase between institutional training and professional ophthalmic assistance practice.

The internship programme is designed to strengthen competency in ophthalmic clinical assistance, patient care, ophthalmic diagnostics, operation theatre assistance, sterilisation procedures, optical dispensing, community eye care activities, and healthcare documentation while maintaining patient safety and professional ethics.

Internship training shall be conducted under the supervision of qualified ophthalmologists, NCAHP-registered optometrists, and designated clinical supervisors within approved ophthalmic healthcare institutions.

The internship guidelines and posting records are provided in Annexure VII.

Objectives of Internship

The internship programme aims to:

- Provide supervised clinical exposure in ophthalmic healthcare settings
- Strengthen practical and procedural competencies
- Improve patient handling and communication skills
- Develop professional behaviour and workplace discipline
- Enhance confidence in ophthalmic clinical assistance procedures
- Promote safe clinical practices and infection prevention
- Improve understanding of healthcare systems and teamwork
- Facilitate exposure to community ophthalmology and public health eye care
- Prepare students for professional responsibilities within ophthalmic healthcare services
- Identify the ocular emergencies

Duration of Internship

The internship shall ordinarily be of six months' duration after successful completion of all academic semesters and prescribed examinations.

Students must complete all clinical postings, competency requirements, attendance obligations, logbook documentation, and assessment requirements during the internship period to successfully complete the programme.

Structure of Internship

The internship shall include rotational postings in various ophthalmic clinical and support service areas to ensure comprehensive exposure to ophthalmic healthcare delivery systems.

The internship programme shall ordinarily include supervised postings in OPD and OT on rotation, covering all the sub-specialities of eye care.

Sl. No.	Subject Title	Credits	Hours per semester		
			Lectures	Practicals	Total
D.OA 401	Internship - Outpatient Departments	12	0	360	360
D.OA 402	Internship - Operation Theatre	12	0	360	360
	Total	24	0	720	720

FOURTH SEMESTER

S. No.	Posting Area	Suggested Duration
1	Ophthalmology Outpatient Department (OPD)	2 Weeks
2	Refraction and Vision Assessment Clinic	2 Weeks
3	Ophthalmic Diagnostic Services	2 Weeks
4	Operation Theatre and Sterilisation Unit	12 Weeks
5	Optical Dispensing Unit	2 Weeks
6	Community Ophthalmology and Vision Screening	2 Weeks
7	Elective/Integrated Posting	2 Week

Institutions may modify posting schedules based on institutional infrastructure, patient load, and clinical training facilities, while ensuring the minimum recommended curriculum is covered.

Clinical Areas of Training

Ophthalmology Outpatient Department (OPD)

Students shall receive supervised exposure to patient registration systems, visual assessment procedures, ophthalmic history-taking assistance, patient preparation, ophthalmic examination assistance, documentation, and patient counselling. Interns shall learn patient flow management, communication skills, clinical etiquette, and record maintenance.

Refraction and Vision Assessment Clinic

Interns shall assist with visual acuity assessment, near vision testing, colour vision assessment, autorefraction and subjective refraction, trial frame handling, lens neutralisation, pupillary distance measurement, and patient counselling regarding spectacle use.

Ophthalmic Diagnostic Services

Interns shall receive exposure to ophthalmic diagnostic procedures, including assisting with non-contact tonometry, preparing patients for OCT, assisting with fundus photography, observing keratometry, assisting with visual field testing, and working with ophthalmic imaging workflow systems.

Students shall additionally learn patient preparation, documentation procedures, equipment handling, and maintenance protocols.

Operation Theatre and Sterilisation Unit

Interns shall receive supervised exposure in operating theatre protocols, OT discipline, patient preparation, sterile gowning and gloving techniques, ophthalmic surgical instrument identification, tray preparation, sterilisation procedures, biomedical waste management, and infection prevention practices.

Students shall observe cataract surgeries, intravitreal procedures, and other ophthalmic procedures under supervision.

Exposure to minor ophthalmic procedures, such as lacrimal syringing, dressing procedures, and injection preparation, may be provided, wherever feasible, under supervision and in accordance with institutional policy.

Optical Dispensing Unit

Interns shall assist in spectacle dispensing procedures, including frame selection, lens identification, spectacle adjustments, fitting procedures, patient education regarding spectacle care, and optical record maintenance.

Community Ophthalmology and Vision Screening

Students shall participate in supervised community eye screening activities, school vision screening programmes, public awareness activities, referral services, and outreach eye care programmes.

Interns shall develop an understanding of blindness prevention programmes, referral pathways, and public health ophthalmology systems.

Competencies Expected During Internship

By completion of the internship, the student should be able to:

- Perform visual acuity assessment independently under supervision
- Assist in refraction procedures
- Prepare patients for ophthalmic examination and diagnostics
- Assist in ophthalmic diagnostic procedures
- Follow sterilisation and infection prevention protocols
- Assist in operation theatre procedures
- Handle ophthalmic instruments safely
- Maintain ophthalmic records and documentation
- Communicate effectively with patients and healthcare teams
- Participate in community vision screening activities
- Demonstrate professional ethics and patient safety practices

Logbook and Record Maintenance

Every intern shall maintain a detailed internship logbook documenting:

- Daily attendance
- Clinical postings
- Procedures observed
- Procedures assisted
- Competencies performed
- Community activities
- Faculty remarks
- Skill assessments

The logbook shall be regularly verified and signed by the supervising faculty or clinical preceptor.

Failure to maintain proper internship records may result in non-completion of internship requirements.

Attendance Requirements

Interns shall ordinarily be required to maintain at least 80% attendance during internship postings. Leave during internship shall be governed by institutional regulations.

Students failing to fulfil attendance requirements may be required to undergo an extension of internship training.

Internship Assessment

Assessment during internship shall be competency-based and continuous.

Evaluation may include:

- Clinical performance assessment
- Professional behaviour assessment
- Communication skills assessment
- Logbook evaluation
- Viva voce examination
- Supervisor feedback
- Community participation assessment

The intern must demonstrate satisfactory performance across all major clinical competency domains before completing the internship.

Professional Conduct During Internship

Interns shall maintain professional discipline, ethical behaviour, patient confidentiality, infection prevention practices, and respectful communication throughout the internship period.

Interns shall function only under supervision and shall not independently diagnose, prescribe, or perform procedures beyond their defined competency and institutional authorisation.

Completion of Internship

Successful completion of the internship shall require:

- Completion of prescribed duration
- Fulfilment of attendance requirements
- Satisfactory clinical competency assessment
- Submission of completed logbook
- Completion of required clinical postings
- Approval by supervising faculty and Head of Department

Upon successful completion of the internship and all academic requirements, the candidate shall become eligible for the award of the Diploma in Ophthalmic Assistant (D.OA).

Additional Components

4.3 Skills-Based Outcomes and Monitorable Indicators

The Diploma in Ophthalmic Assistant (D.OA) programme has been designed using a competency-based educational framework emphasising measurable clinical skills, professional competencies, patient safety practices, and supervised practical performance. The curriculum focuses not only on theoretical learning but also on the development of observable and assessable workplace competencies required in ophthalmic healthcare settings.

The programme aims to ensure that students progressively acquire competencies in ophthalmic clinical assistance, ophthalmic diagnostics, patient communication, sterilization procedures, operation theatre support, optical dispensing, and community eye care services under supervision.

Skills-based outcomes have been integrated throughout the curriculum to facilitate competency mapping, performance monitoring, and structured assessment.

At the completion of the programme, the student should be able to:

- Perform visual acuity assessment accurately
- Assist in ophthalmic refraction procedures
- Prepare patients for ophthalmic examinations and diagnostic procedures
- Assist in operation theatre procedures under supervision
- Follow sterilisation and infection prevention protocols
- Handle ophthalmic instruments safely and responsibly
- Maintain clinical records and ophthalmic documentation
- Participate in community eye screening activities
- Demonstrate professional ethics and patient-centred behaviour
- Communicate effectively with patients and healthcare professionals

Monitorable indicators have been incorporated through logbooks, competency checklists, practical examinations, internal assessments, skill demonstrations, and clinical evaluations.

Examples of monitorable indicators include:

- Number of visual acuity assessments performed
- Number of refraction procedures assisted
- OT procedures observed and assisted
- Community screening participation
- Completion of sterilisation competencies
- Clinical posting attendance
- Documentation and logbook completion
- Professional behaviour evaluation

The competency-based framework ensures that the student demonstrates practical proficiency before completion of the programme.

4.4 Clinical Skills Each Semester

Clinical skills have been structured progressively across semesters to ensure gradual acquisition of practical knowledge, patient interaction skills, procedural confidence, and supervised clinical competency.

Semester I students are expected to develop foundational competencies, including patient interaction, visual acuity assessment, identification of ophthalmic instruments, hand hygiene, segregation of biomedical waste, and basic ophthalmic documentation.

Semester II focuses on the development of competencies related to ophthalmic optics, refraction assistance, slit lamp assistance, basic diagnostic procedures, sterilisation protocols, ophthalmic medication handling, and supervised patient preparation.

Semester III emphasises intermediate clinical competencies, including ophthalmic diagnostic assistance, OCT and imaging support, visual field-testing assistance, operation theatre preparation, sterilisation management, contact lens handling demonstrations, and community screening participation.

Semester IV consolidates all competencies acquired during academic training and enables students to perform supervised ophthalmic assistance procedures with increasing confidence and workplace readiness.

Competency development is assessed continuously using practical examinations, competency checklists, logbook systems, viva voce examinations, and clinical performance evaluations.

4.5 Curriculum Mapping and Credit Management

The curriculum follows a semester and credit-based structure integrating theory teaching, practical sessions, supervised clinical postings, skill laboratory exposure, self-directed learning, and internship training.

Credits have been assigned according to the academic workload associated with classroom teaching, practical training, clinical exposure, assignments, and competency development activities. The curriculum has been carefully mapped to ensure balanced progression in foundational sciences, ophthalmic sciences, practical skill acquisition, and supervised clinical competency development.

The curriculum mapping process ensures:

- Vertical integration of learning across semesters
- Horizontal integration between theory and practical training
- Alignment of competencies with learning outcomes
- Appropriate sequencing of foundational and clinical subjects
- Balanced distribution of academic workload
- Integration of clinical exposure throughout the programme

The programme has also been broadly aligned with the approved Optometry curriculum framework to facilitate academic equivalence, competency mapping, and future lateral entry pathways, wherever applicable.

Continuous review of curriculum mapping and credit allocation may be undertaken periodically to maintain alignment with advances in ophthalmic healthcare education and evolving professional requirements.

4.6 Internship Guidelines

The internship programme is a compulsory component of the curriculum and is intended to provide supervised, hands-on clinical training in ophthalmic healthcare settings.

Internship training enables students to integrate theoretical knowledge and practical competencies acquired during academic semesters into workplace-based clinical practice. During an internship, students function under supervision within ophthalmology outpatient departments, refraction clinics, ophthalmic diagnostic services, operation theatres, optical dispensing units, and community eye care programmes.

Students are expected to maintain professionalism, patient confidentiality, infection prevention practices, workplace discipline, and ethical behaviour throughout the internship period.

Internship guidelines include:

- Mandatory completion of prescribed clinical postings
- Maintenance of internship logbook and competency records
- Minimum attendance requirements
- Continuous competency evaluation
- Supervised clinical participation
- Completion of procedural competencies
- Submission of internship documentation

The internship programme additionally provides exposure to patient counselling, healthcare teamwork, documentation systems, biomedical waste management, and public health ophthalmology services.

Successful completion of an internship shall be mandatory for the award of the diploma qualification.

4.7 Exit Examination

The programme includes a structured exit examination system intended to assess theoretical knowledge, practical competency, clinical reasoning, communication skills, ethical behaviour, and workplace readiness.

The exit examination framework includes:

- Theory examinations
- Practical examinations
- Viva voce examinations
- Clinical skill assessment
- Logbook evaluation
- Internship assessment
- Practical skill demonstrations

Students are required to demonstrate minimum competency standards in both theory and practical components separately. The practical examination may include direct observation of procedures, objective structured clinical examination (OSCE) stations, instrument identification, patient interaction assessment, and clinical documentation evaluation.

Successful completion of all prescribed academic, practical, clinical, and internship requirements shall be necessary for the award of the Diploma in Ophthalmic Assistant (D.OA).

4.8 Research Exposure (Basic)

Although the programme is diploma-oriented and clinically focused, basic exposure to research methodology and evidence-based practice has been incorporated to develop a scientific temperament and promote understanding of healthcare documentation and clinical data interpretation.

Students shall receive introductory exposure to:

- Basics of research methodology
- Data collection and record maintenance
- Literature awareness
- Basic statistics concepts
- Clinical audit participation
- Evidence-based healthcare concepts

The purpose of this component is not to develop independent researchers at the diploma level but to promote awareness regarding scientific documentation, clinical observation, and evidence-informed ophthalmic practice.

Students may additionally participate in simple community surveys, screening data collection, case presentations, and academic assignments under faculty guidance.

4.9 Digital Health and Electronic Medical Record (EMR) Exposure

Modern ophthalmic healthcare increasingly depends upon digital healthcare systems, electronic documentation, teleophthalmology platforms, imaging systems, and electronic medical record management. Therefore, the curriculum includes introductory exposure to digital health technologies relevant to ophthalmic healthcare practice.

Students shall be introduced to:

- Electronic medical records (EMR)
- Digital patient registration systems
- Ophthalmic imaging documentation
- Teleophthalmology concepts
- Digital appointment systems
- Electronic reporting and data management
- Data confidentiality and cybersecurity awareness

Students are expected to develop basic competency in digital documentation systems and electronic workflow management used in contemporary ophthalmic healthcare institutions.

4.10 AI-Assisted Screening Tools

The curriculum recognises the growing role of artificial intelligence (AI) and technology-assisted screening systems in modern ophthalmic healthcare delivery. A basic introductory exposure to AI-assisted ophthalmic technologies has therefore been incorporated into the educational framework.

Students may receive orientation regarding:

- AI-assisted retinal screening systems
- Automated refractive assessment technologies
- AI-based diabetic retinopathy screening
- Teleophthalmology-assisted triage systems
- Digital vision screening platforms
- Automated ophthalmic imaging interpretation concepts

The purpose of this component is to raise awareness of emerging technologies and to prepare students for future technology-integrated ophthalmic healthcare systems. Students are not expected to independently interpret AI-generated diagnostic outputs but should understand their supportive role within supervised ophthalmic healthcare practice.

The curriculum encourages adaptation to evolving digital healthcare environments while maintaining emphasis on ethical practice, patient safety, supervised clinical decision-making, and professional accountability.





CHAPTER – 5:

Competency Standards for Entry-Level Ophthalmic Assistants in India

5.1 Introduction

Competency standards define the minimum knowledge, practical skills, professional behaviour, ethical conduct, communication abilities, and workplace performance expected from an entry-level ophthalmic assistant upon successful completion of the Diploma in Ophthalmic Assistant (D.OA) programme. The competency framework has been developed using principles of competency-based allied healthcare education and is broadly aligned with contemporary ophthalmic healthcare delivery systems and competency frameworks adopted within professional healthcare education.

The purpose of defining competency standards is to ensure uniformity in training outcomes, strengthen patient safety, standardise ophthalmic assistant education, and improve the quality of ophthalmic healthcare support services across institutions and healthcare settings in India.

The competency standards outlined in this chapter describe the expected minimum competencies of entry-level OA/VT functioning under the supervision of qualified ophthalmologists (as per ISCO Code 3256). These standards additionally support curriculum mapping, skill assessment, internship evaluation, professional accountability, and workplace readiness.

The competency framework has been organised into major competency domains reflecting the practical responsibilities and professional expectations associated with ophthalmic assistant practice in hospitals, eye care centres, optical services, community eye care programmes, and ophthalmic diagnostic settings.

5.2 General Principles of Competency-Based Practice

The competency standards for OA/VT are based upon the following principles:

- Patient-centred healthcare delivery
- Safe and ethical clinical practice
- Competency-based supervised clinical performance
- Professional accountability
- Infection prevention and patient safety
- Effective communication and teamwork
- Continuous learning and professional development
- Respect for patient dignity and confidentiality
- Community-oriented eye healthcare services
- Technology-integrated ophthalmic healthcare delivery

Ophthalmic Assistants shall function within the defined scope of training and professional supervision framework and shall not independently diagnose, prescribe, or perform procedures beyond their authorised competency level.

5.3 Competency Domains

The competency standards for entry-level OA/VTs have been grouped into the following domains:

- Patient Care Competencies
- Refraction Assistance Competencies
- Ophthalmic Diagnostic Competencies
- Operation Theatre (OT) Assistance Competencies
- Infection Prevention and Control Competencies
- Communication Competencies
- Professionalism and Ethical Practice Competencies
- Community Eye Care Competencies
- Documentation and Record Management Competencies
- Digital and Technology-Based Competencies

5.4 Patient Care Competencies

Entry-level OA/VT should be capable of providing safe, respectful, and patient-centred ophthalmic support services under supervision. They should demonstrate appropriate patient interaction, patient preparation, and clinical assistance skills while maintaining patient dignity, confidentiality, and comfort.

The Ophthalmic Assistant should be able to:

- Receive and guide patients appropriately within ophthalmic healthcare settings
- Obtain basic ophthalmic and medical history under supervision
- Assist in patient preparation for ophthalmic examination and procedures
- Perform visual acuity assessment and basic vision screening
- Position patients appropriately during ophthalmic procedures
- Provide basic patient education and counselling
- Recognise emergency situations requiring immediate referral
- Maintain patient comfort and safety during procedures
- Assist elderly, paediatric, and visually impaired patients appropriately
- Demonstrate empathy, professionalism, and respectful behaviour

The Ophthalmic Assistant should additionally understand the importance of confidentiality, informed communication, and culturally sensitive patient interaction.

5.5 Refraction Assistance Competencies

The Ophthalmic Assistant should possess the competencies necessary for assisting ophthalmologists (as per ISCO Code 3256) during refraction and vision assessment procedures.

The entry-level Ophthalmic Assistant should be able to:

- Measure distance and near visual acuity
- Perform pinhole assessment
- Conduct colour vision screening
- Handle and adjust trial frames appropriately
- Identify ophthalmic lenses and lens powers
- Assist in autorefraction and subjective refraction procedures
- Record refractive findings accurately under supervision
- Measure pupillary distance
- Assist in binocular vision screening procedures
- Assist in spectacle dispensing and adjustments
- Educate patients regarding spectacle usage and maintenance

The Ophthalmic Assistant should understand basic refractive errors and the principles of optical correction while functioning strictly within supervised practice boundaries.

5.6 Ophthalmic Diagnostic Competencies

The Ophthalmic Assistant should be capable of assisting in ophthalmic diagnostic investigations and maintaining safe handling of ophthalmic instruments and equipment.

The Ophthalmic Assistant should be able to:

- Identify commonly used ophthalmic instruments
- Prepare patients for ophthalmic diagnostic procedures
- Assist in slit lamp examination procedures
- Assist in non-contact tonometry procedures
- Assist in keratometry and biometry procedures
- Assist in OCT and ophthalmic imaging procedures
- Assist in visual field-testing procedures
- Maintain cleanliness and care of ophthalmic equipment
- Follow equipment handling and safety protocols
- Maintain diagnostic documentation and patient records

The Ophthalmic Assistant should also understand the basic principles of ophthalmic diagnostics and workflow coordination in ophthalmic clinics.

5.7 Operation Theatre (OT) Assistance Competencies

The Ophthalmic Assistant should possess competencies related to ophthalmic operation theatre assistance, sterilisation procedures, patient preparation, and OT safety protocols.

The Ophthalmic Assistant should be able to:

- Maintain OT discipline and aseptic precautions
- Prepare patients for ophthalmic surgical procedures
- Identify ophthalmic surgical instruments
- Assist in sterile tray preparation
- Perform sterilisation and disinfection procedures
- Follow biomedical waste management protocols
- Assist in patient shifting and positioning
- Assist in minor ophthalmic procedures under supervision
- Maintain operation theatre cleanliness and workflow
- Follow infection prevention and patient safety guidelines

The Ophthalmic Assistant should understand the importance of sterile techniques, surgical safety, and prevention of healthcare-associated infections.

5.8 Infection Prevention and Control Competencies

Infection prevention and patient safety form essential components of ophthalmic healthcare practice. Entry-level OA/VT should demonstrate safe clinical behaviour and adherence to infection prevention standards.

The Ophthalmic Assistant should be able to:

- Perform proper hand hygiene
- Use personal protective equipment appropriately
- Follow sterilisation and disinfection protocols
- Segregate biomedical waste correctly
- Maintain clinical cleanliness and hygiene
- Handle ophthalmic instruments safely
- Prevent cross-contamination during procedures
- Follow occupational safety measures
- Recognise infection risks within healthcare settings
- Participate in the implementation of patient safety protocols

The Ophthalmic Assistant should understand the importance of infection control in ophthalmic practice and the consequences of unsafe clinical practices.

5.9 Communication Competencies

Effective communication forms a critical component of healthcare delivery. Ophthalmic Assistants should demonstrate effective communication skills when interacting with patients, caregivers, faculty, and other healthcare professionals.

The Ophthalmic Assistant should be able to:

- Communicate effectively with patients and caregivers
- Explain procedures in simple and understandable language
- Demonstrate respectful and professional behaviour
- Maintain professional communication within healthcare teams
- Counsel patients regarding basic ophthalmic procedures and follow-up
- Communicate appropriately with paediatric and geriatric patients
- Maintain confidentiality and sensitivity during communication
- Handle patient queries politely and professionally
- Demonstrate listening skills and empathy
- Maintain accurate verbal and written communication

Communication competencies should support patient-centred care, teamwork, and safe healthcare delivery.

5.10 Professionalism and Ethical Practice Competencies

The Ophthalmic Assistant should maintain ethical behaviour, professional discipline, accountability, and workplace responsibility at all times.

The Ophthalmic Assistant should be able to:

- Maintain professional appearance and conduct
- Follow institutional policies and regulations
- Respect patient dignity and confidentiality
- Work responsibly within the scope of practice
- Demonstrate punctuality and discipline
- Accept supervision and feedback positively
- Maintain honesty and integrity in clinical practice
- Demonstrate teamwork and cooperation
- Follow ethical principles in patient care
- Maintain accountability for assigned responsibilities

Professionalism competencies are essential for safe healthcare delivery and the maintenance of public trust in healthcare services.

5.11 Community Eye Care Competencies

The Ophthalmic Assistant should possess the competencies necessary for participation in community ophthalmology and public health eye care activities.

The Ophthalmic Assistant should be able to:

- Participate in community vision screening programmes
- Assist in school vision screening activities
- Conduct basic vision assessment in outreach settings
- Assist in referral and follow-up systems
- Participate in public awareness and eye health education programmes
- Maintain screening records and reports
- Assist in blindness prevention programmes
- Promote awareness regarding ocular hygiene and preventive eye care
- Participate in teleophthalmology-supported outreach activities
- Work effectively within community healthcare teams

The Ophthalmic Assistant should understand the importance of public health ophthalmology and the prevention of avoidable blindness.

5.12 Documentation and Record Management Competencies

The Ophthalmic Assistant should maintain accurate clinical documentation and healthcare records as part of professional practice.

The Ophthalmic Assistant should be able to:

- Maintain patient registration records
- Record visual acuity and examination findings appropriately
- Maintain clinical logbooks and procedural records
- Handle ophthalmic documentation forms correctly
- Maintain confidentiality of patient records
- Assist in electronic documentation systems
- Prepare reports and screening documentation
- Maintain inventory and procedural records where applicable
- Follow institutional documentation protocols
- Ensure accuracy and legibility in records

Proper documentation supports continuity of care, patient safety, legal compliance, and institutional quality assurance.

5.13 Digital and Technology-Based Competencies

Modern ophthalmic healthcare increasingly relies on digital technologies, imaging systems, teleophthalmology platforms, and electronic medical record systems. Entry-level OA/VT should possess basic digital healthcare competencies relevant to ophthalmic practice.

The Ophthalmic Assistant should be able to:

- Use computers for healthcare documentation
- Operate basic digital healthcare systems
- Assist in electronic medical record management
- Utilise digital ophthalmic imaging systems under supervision
- Participate in teleophthalmology workflows
- Handle digital patient registration systems
- Understand basic cybersecurity and data confidentiality principles
- Assist in digital screening programmes
- Demonstrate awareness regarding AI-assisted ophthalmic technologies
- Utilise e-learning and digital educational resources

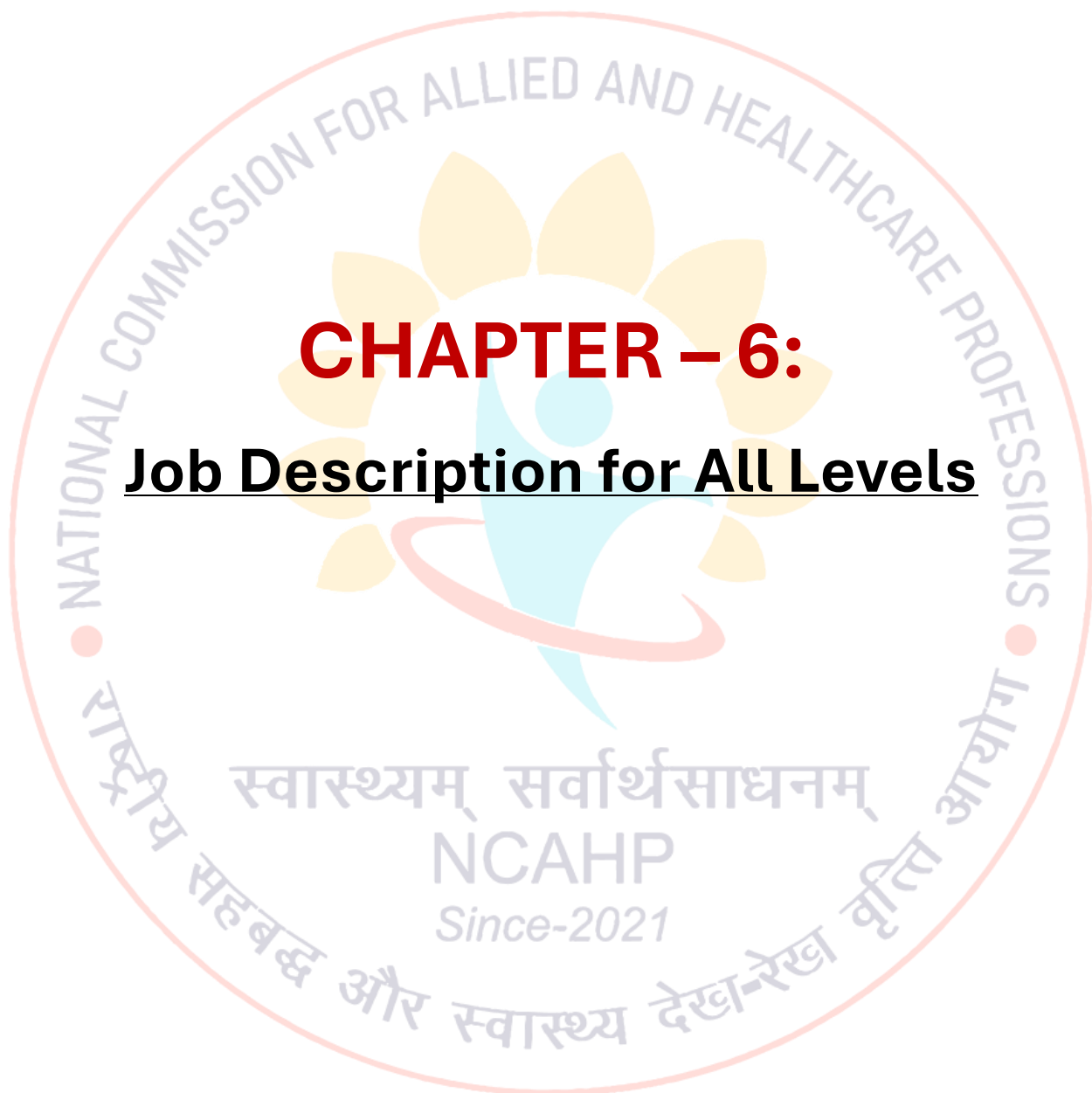
The curriculum encourages adaptation to evolving technology-enabled healthcare systems while maintaining emphasis on supervised clinical judgement, ethical practice, and patient safety.

5.14 Conclusion

The competency standards described in this chapter define the expected minimum competencies of entry-level OA/VT in India upon successful completion of the Diploma in Ophthalmic Assistant programme. These standards are intended to strengthen standardisation of ophthalmic assistant education, improve clinical competency development, support quality assurance in healthcare training, and enhance the delivery of ophthalmic support services across healthcare settings.

The competency framework additionally supports curriculum implementation, clinical training, internship evaluation, assessment systems, and professional accountability while promoting patient-centred, ethical, safe, and competency-based ophthalmic healthcare practice under professional supervision.





CHAPTER – 6:

Job Description for All Levels

6.1 Introduction

The Diploma in Ophthalmic Assistant (D.OA) programme is designed to prepare competent ophthalmic support personnel capable of functioning within diverse ophthalmic healthcare environments under the supervision of qualified ophthalmologists (as per ISCO Code 3256). The healthcare responsibilities of OA/VT may vary according to institutional requirements, healthcare settings, clinical experience, additional training, and workplace specialisation.

This chapter outlines the broad job descriptions, roles, responsibilities, and expected professional functions associated with different levels and categories of ophthalmic assistant practice. The descriptions are intended to guide institutions, employers, healthcare organisations, and professionals regarding the scope of duties expected from trained OA/VT within supervised ophthalmic healthcare systems.

The job roles described herein are indicative and may vary depending upon institutional policies, healthcare infrastructure, technological advancements, regulatory frameworks, and healthcare workforce requirements.

6.2 Entry-Level Ophthalmic Assistant (OA)

Overview

An Entry-Level Ophthalmic Assistant is a trained allied healthcare professional who provides supervised ophthalmic support services in hospitals, eye care centres, clinics, diagnostic facilities, optical establishments, and community healthcare settings. The Entry-Level OA functions under the direct supervision of qualified ophthalmologists (as per ISCO Code 3256) and assists in routine ophthalmic clinical and patient care procedures.

Major Responsibilities

The Entry-Level Ophthalmic Assistant is expected to:

- Receive and guide patients within ophthalmic healthcare settings
- Assist in patient registration and appointment systems
- Record visual acuity and basic ophthalmic history
- Prepare patients for ophthalmic examination
- Assist during refraction and ophthalmic diagnostic procedures
- Maintain ophthalmic records and documentation
- Handle ophthalmic instruments appropriately
- Assist in optical dispensing procedures
- Maintain infection prevention and sterilisation protocols
- Support operation theatre workflow and patient preparation
- Assist in community eye screening programmes
- Educate patients regarding follow-up and basic eye care

Workplace Settings

Entry-Level Ophthalmic Assistants may work in:

- Ophthalmology hospitals
- Eye care clinics
- Multispecialty hospitals
- Vision centres
- Optical establishments
- Community eye care programmes
- NGO-based eye health services
- Teleophthalmology support systems

Professional Limitations

The Entry-Level OA shall function strictly under supervision.

6.3 Senior Ophthalmic Assistant

Overview

A Senior Ophthalmic Assistant is an experienced ophthalmic support professional with advanced practical exposure and additional competency in ophthalmic workflow management, supervision of junior staff, and coordination of clinical activities.

Senior Ophthalmic Assistants may function as senior clinical support personnel within ophthalmology departments and assist in training, coordination, and workflow management under supervision.

Major Responsibilities

The Senior Ophthalmic Assistant may:

- Supervise junior OA/VT and trainees
- Coordinate patient flow within ophthalmology departments
- Assist in ophthalmic diagnostic procedures
- Support ophthalmologists during specialised clinics
- Coordinate operation theatre workflow
- Assist in inventory and equipment management
- Participate in clinical audits and documentation systems
- Assist in training and orientation of new staff
- Coordinate community outreach programmes
- Maintain quality assurance protocols within clinical areas

Additional Skills Expected

Senior OA/VT should demonstrate:

- Leadership abilities
- Advanced communication skills
- Workplace discipline
- Clinical coordination abilities
- Professional accountability
- Understanding of institutional protocols

6.4 Ophthalmic Operation Theatre (OT) Assistant

Overview

An Ophthalmic OT Assistant specialises in ophthalmic surgical assistance, sterilisation procedures, operation theatre preparation, and OT workflow management under the supervision of ophthalmologists and OT nursing personnel.

The role is particularly important in cataract surgery centres, refractive surgery centres, retina services, and high-volume ophthalmic surgical facilities.

Major Responsibilities

The Ophthalmic OT Assistant is expected to:

- Prepare operation theatre areas for ophthalmic surgeries
- Maintain OT aseptic protocols
- Prepare sterile instrument trays
- Assist in patient preparation before surgery
- Handle ophthalmic surgical instruments appropriately
- Assist during ophthalmic surgical procedures under supervision
- Maintain OT sterilisation procedures
- Ensure biomedical waste segregation and disposal
- Assist in patient shifting and post-operative workflow
- Maintain OT inventory and consumables

Specialised Areas of Exposure

The OT Assistant may receive exposure in:

- Cataract surgery OT
- Retina procedure rooms
- Minor ophthalmic procedure rooms
- Intravitreal injection setup
- Refractive surgery units
- Sterilisation and CSSD units

6.5 Community Vision Assistant

Overview

A Community Vision Assistant functions primarily within community ophthalmology and public health eye care systems. The role focuses on vision screening, awareness activities, referral coordination, outreach eye care programmes, and prevention of avoidable blindness.

This role becomes particularly important in rural, underserved, school-based, and outreach healthcare settings.

Major Responsibilities

The Community Vision Assistant may:

- Participate in school vision screening programmes
- Conduct supervised visual acuity assessment in outreach settings
- Assist in community eye camps
- Maintain screening and referral records
- Educate communities regarding eye health and ocular hygiene
- Promote awareness regarding cataract, diabetes-related eye diseases, and preventable blindness
- Assist in teleophthalmology outreach programmes
- Coordinate referrals to higher eye care centres
- Support follow-up services within community programmes

Public Health Role

The Community Vision Assistant contributes toward:

- Early detection of visual impairment
- Blindness prevention programmes
- Referral and rehabilitation systems
- Public awareness and health education
- Rural eye healthcare support

6.6 Diagnostic Assistant

Overview

A Diagnostic Assistant specializes in ophthalmic diagnostic support services and assists in ophthalmic investigations and imaging procedures under supervision.

Major Responsibilities

The Diagnostic Assistant may:

- Prepare patients for diagnostic procedures
- Assist in OCT imaging procedures
- Assist in visual field testing
- Assist in fundus photography
- Assist in keratometry and biometry procedures
- Maintain diagnostic documentation and records
- Handle ophthalmic diagnostic equipment safely
- Ensure patient comfort during investigations
- Maintain equipment cleanliness and workflow coordination

Skills Required

The Diagnostic Assistant should demonstrate:

- Understanding of ophthalmic diagnostic systems
- Equipment handling competency
- Documentation accuracy
- Patient communication skills
- Infection prevention awareness

6.7 Optical Assistant

Overview

The Optical Assistant functions within optical dispensing units and supports spectacle dispensing, lens handling, patient counselling, and optical workflow management.

The role combines basic optics knowledge, communication skills, and patient handling abilities within optical services.

Major Responsibilities

The Optical Assistant may:

- Assist patients in frame selection
- Identify ophthalmic lenses and coatings
- Measure pupillary distance
- Assist in spectacle fitting and adjustments
- Educate patients regarding spectacle care
- Maintain dispensing records
- Coordinate with ophthalmologists (as per ISCO Code 3256) regarding prescriptions
- Maintain inventory of frames and lenses
- Support optical dispensing workflow

Workplace Settings

Optical Assistants may work in:

- Hospital optical dispensing units
- Optical establishments
- Vision centres
- Ophthalmology clinics
- Community optical services

6.8 Academic Progression Pathways

Introduction

The Diploma in Ophthalmic Assistant programme has been designed to develop a workforce ready to support ophthalmic care.

The curriculum maintains broad alignment with competency-based optometry education frameworks to support progression into higher educational pathways wherever feasible and permissible under institutional and regulatory norms.

Opportunities for Higher Education

Graduates of the programme may pursue:

Bachelor of Optometry (B. Optom.) – Lateral entry into the second year of the Bachelor of Optometry degree.

Suitable advanced diploma or any other degree, subject to the eligibility criteria prescribed by the respective authorities.

Lateral Entry Opportunities

Subject to institutional regulations and competency equivalence requirements, eligible diploma holders may be considered for lateral entry into the second year of Bachelor of Optometry programmes or related allied healthcare programmes.

Institutions may prescribe:

- Bridge courses
- Competency assessments
- Entrance examinations
- Credit mapping requirements
- Additional practical training

before granting lateral academic progression.

Continuing Professional Development

Graduates are encouraged to participate in:

- Continuing Medical Education (CME)
- Continuing Professional Development (CPD) programmes
- Workshops and certification courses
- Ophthalmic skill upgradation programmes
- Digital healthcare and teleophthalmology training
- Infection prevention and patient safety training

Continuous learning and professional development are essential for maintaining competency and adapting to evolving ophthalmic healthcare technologies and clinical practices.

6.9 Conclusion

The job descriptions outlined in this chapter reflect the broad professional responsibilities, supervised clinical functions, and workplace expectations associated with various levels and domains of ophthalmic assistant practice in India. The competency-based Diploma in Ophthalmic Assistant programme aims to produce skilled, ethical, patient-centred, and professionally responsible ophthalmic support personnel capable of functioning effectively within multidisciplinary ophthalmic healthcare teams.

The programme also promotes academic progression, professional growth, and lifelong learning while aligning with evolving healthcare technologies, patient safety standards, and competency-based allied healthcare education systems.



The logo of the National Commission for Allied and Healthcare Professions (NCAHP) is a circular emblem. It features a stylized sun with yellow rays at the top and a blue figure with arms raised in the center. The text "NATIONAL COMMISSION FOR ALLIED AND HEALTHCARE PROFESSIONS" is written in a circle around the top. Below the figure, the Sanskrit motto "स्वास्थ्यम् सर्वार्थसाधनम्" (Swasthyam Sarvarthasadhanam) is written, followed by "NCAHP" and "Since-2021". At the bottom, the Hindi text "राष्ट्रीय सहबद्ध और स्वास्थ्य देख-रेख वृत्ति आयोग" (Rashtriya Sahabaddha Aur Swasthya Dekh-Rekha Vritti Aayog) is written.

CHAPTER – 7:

Minimum Standard Requirements

7.1 Introduction

The quality of ophthalmic assistant education and training depends significantly upon the adequacy of institutional infrastructure, clinical exposure, faculty strength, teaching-learning resources, laboratory facilities, and patient availability. Institutions conducting the Diploma in Ophthalmic Assistant (D.OA) programme must therefore maintain minimum standard requirements necessary for competency-based ophthalmic healthcare education and supervised clinical training.

The minimum standards described in this chapter are intended to ensure uniformity, patient safety, academic quality, adequate practical exposure, and effective implementation of the curriculum across institutions offering the programme. These standards are broadly aligned with competency-based allied healthcare education principles and contemporary ophthalmic healthcare training requirements.

Institutions conducting the programme should maintain adequate infrastructure, qualified faculty, ophthalmic equipment, clinical facilities, and learning resources necessary for effective training of OA/VT.

Detailed infrastructure specifications, equipment requirements, staffing norms, learning resources, and faculty qualification details are further elaborated in Annexure IX.

7.2 Institutional Eligibility Criteria

Institutions intending to conduct the Diploma in Ophthalmic Assistant programme should preferably:

- Be recognised by competent statutory/regulatory authorities
- Possess adequate academic infrastructure
- Have access to ophthalmic clinical facilities
- Maintain appropriate faculty strength
- Ensure availability of laboratories and equipment
- Maintain patient-care facilities for clinical exposure
- Comply with applicable healthcare and educational regulations

The programme may preferably be conducted in:

- Medical and allied and healthcare colleges of a State Government/Central Government/Union Territory having ophthalmology and optometry services.
- A University/Deemed to be a university affiliated/having with not-for-profit tertiary eye hospital with ophthalmology and optometry services.
- An autonomous body promoted by the Central and State Governments by or under a Statute for the purpose of medical education, having ophthalmology and optometry services.

- A society registered under the Societies Registration Act, 1860 (21 of 1860) or corresponding Acts in States affiliated to not-for-profit tertiary eye hospitals.
- A public religious or charitable trust registered under the Trust Act, 1882 (2 of 1882) or the WAKFS Act, 1954 (29 of 1954), affiliated to not-for-profit tertiary eye hospitals.

7.2 Minimum and Maximum Seat Intake

The student intake capacity should be determined based upon available infrastructure, faculty strength, laboratory facilities, clinical patient load, equipment availability, and supervised clinical training capacity.

Ordinarily, the recommended intake may be:

Type of Institution	Recommended Intake
Minimum Intake	10 Students per Batch
Maximum Intake	40 Students per Batch

Institutions proposing higher intake capacities should demonstrate proportional enhancement of:

- Faculty strength
- Clinical exposure
- Laboratory facilities
- Patient load
- Equipment availability
- Classroom and skill laboratory infrastructure

The regulatory authority or affiliating institution may modify intake capacity requirements based on institutional capability and inspection findings.

7.3 Departments Required

Institutions conducting the programme should preferably have access to the following departments and training areas:

- Ophthalmology Outpatient Department (OPD)
- Vision Clinic
- Ophthalmic Diagnostic Unit
- Operation Theatre (OT)
- Sterilisation/CSSD Facility
- Optical Dispensing Unit
- Community Ophthalmology Services
- Skill Laboratory/Simulation Area
- Basic Biomedical Science Teaching Facilities

Where full-fledged in-house facilities are not available, institutions may establish formal clinical affiliations or Memorandum of Understanding (MoU) arrangements with recognized ophthalmic healthcare institutions.

7.4 Distance from Hospital

The teaching institution should preferably be located within the same campus as the affiliated hospital or clinical training facility to facilitate continuous supervised clinical exposure and integrated clinical teaching.

Where separate facilities are utilised, the distance between the institute and the practicing facility or hospital shall be a maximum of 20 km if the college is in an urban area, and 30 km if it is in a rural area.

The affiliated hospital should provide adequate ophthalmic clinical exposure and supervised patient care training that are relevant to the curriculum requirements.

7.5 Built-up Area Requirements

The institution should maintain adequate built-up area necessary for academic activities, practical training, clinical teaching, student support services, and administrative functions.

The institution shall ensure that all infrastructure, facilities, and services are accessible to Persons with Disabilities in accordance with the provisions of the Rights of Persons with Disabilities Act, 2016. Adequate provisions shall be made for barrier-free access, including accessible pathways, classrooms, laboratories, libraries, and other essential facilities, to ensure an inclusive learning environment.

The built-up area should preferably include:

Facility	Suggested Requirement
Classrooms	12 sq. ft per student intake per year
Skill Laboratory	Minimum 500 sq. ft.
Refraction Laboratory	Minimum 500 sq. ft.
Computer Laboratory	Minimum 300 sq. ft.
Faculty Rooms	As per faculty strength
Library	Minimum 500 sq. ft.
Administrative Area	Adequate institutional office space
Student Common Area	Recommended
Demonstration Room	Recommended

Institutions may expand infrastructure in line with intake capacity and programme expansion.

7.6 Classroom Requirements

The institution should maintain adequate classrooms with proper seating arrangements, lighting, ventilation, and teaching-learning facilities.

Classrooms should preferably include:

- Audio-visual teaching systems
- LCD projector and screen
- Whiteboard/smart board
- Adequate lighting and ventilation
- Seating arrangements appropriate for batch size
- Internet access wherever feasible

Classrooms should support interactive teaching and learning activities, seminars, demonstrations, and group discussions.

7.7 Laboratories

The institution should establish appropriate practical laboratories and skill training areas necessary for competency-based ophthalmic assistant education.

The following laboratories are recommended:

Refraction and Ophthalmic Optics Laboratory

This laboratory should support teaching and practical training in visual assessment, lens handling, trial frame procedures, and refraction assistance.

Ophthalmic Instrumentation Laboratory

This laboratory should facilitate exposure to ophthalmic instruments, diagnostic devices, imaging systems, and basic maintenance procedures.

Skill Laboratory/Simulation Laboratory

The skill laboratory should support simulation-based training in:

- Visual acuity assessment
- Patient positioning
- OT assistance
- Sterilisation techniques
- Instrument handling
- Communication skills
- Biomedical waste segregation

Computer Laboratory

The computer laboratory should facilitate:

- Computer education
- EMR training
- Digital healthcare exposure
- Teleophthalmology orientation
- E-learning activities

7.8 Equipment Lists

Institutions should maintain adequate ophthalmic equipment for teaching, demonstrations, practical training, and supervised clinical competency development.

The institution should preferably possess:

Basic Ophthalmic Equipment

- Visual acuity charts
- Near vision charts
- Trial lens sets
- Trial frames
- Autorefractor
- Streak retinoscope
- Torch lights
- Colour vision charts

Diagnostic Equipment

- Slit lamp biomicroscope
- Non-Contact Tonometer
- Keratometer
- Autorefractometer
- Fundus camera (where feasible)
- OCT exposure facility (preferably available through affiliated hospital)
- Visual field analyser access

OT and Sterilisation Equipment

- Autoclave
- Sterilisation drums
- Surgical trays
- Operation theatre instrument sets
- Personal protective equipment (PPE) kits
- Biomedical waste bins

Optical Dispensing Equipment

- Lensometer
- Frame fitting tools
- Pupillometer (where available)
- Optical dispensing accessories

Computer and Digital Systems

- Desktop computers
- Internet connectivity
- EMR software exposure
- Audiovisual teaching systems

Institutions may additionally maintain advanced ophthalmic equipment depending upon institutional capacity and clinical specialisation.

7.9 Library Requirements

The institution should maintain a well-equipped library supporting ophthalmic sciences education, allied healthcare learning, and self-directed study.

The library should preferably include:

- Standard ophthalmology textbooks
- Optometry and optics textbooks
- Allied healthcare education books
- Community ophthalmology resources
- Professional ethics and healthcare management books
- Digital learning resources
- Internet-enabled reference access
- E-books and online learning materials, where feasible

Adequate reading space and seating arrangements should be available for students and faculty.

7.10 Journals and Learning Resources

The institution should subscribe to relevant ophthalmology and allied healthcare journals, either in print or digital format, to support academic development and evidence-based learning.

Suggested resources may include:

- Indian Journal of Ophthalmology
- Community Eye Health Journal
- Delhi Journal of Ophthalmology

- Optometry and Vision Science resources
- Allied healthcare education journals
- Digital ophthalmology learning platforms

Institutions are encouraged to provide access to online educational resources, webinars, digital libraries, and evidence-based healthcare databases wherever feasible.

7.11 Faculty Requirements

Qualified faculty are essential for the effective implementation of competency-based ophthalmic assistant education.

Institutions conducting the programme should preferably have:

- NCAHP-registered Optometrists
- Qualified Ophthalmologists
- Allied healthcare educators
- Clinical instructors/preceptors
- Visiting faculty and subject experts where necessary

Faculty strength should be proportional to student intake and clinical training requirements. Detailed information on faculty qualifications is given in Annexure IX.

7.12 Faculty Qualification Norms

Faculty teaching within the programme should possess appropriate academic qualifications, clinical competency, teaching experience, and, where applicable, professional registration.

Suggested qualification norms are:

Position	Suggested Qualification
Programme Coordinator	Master's Degree in Optometry
Faculty – Ophthalmic Sciences	Bachelor's/Master's in Optometry or related allied healthcare field
Faculty – Clinical Ophthalmology	Qualified Ophthalmologist or Optometrist
Clinical Instructor	Qualified Optometrist/Ophthalmic Professional
Visiting Faculty	Subject experts as required

Faculty involved in ophthalmic disease teaching, surgery-related subjects, and advanced ophthalmology should preferably include qualified ophthalmologists.

Institutions are encouraged to promote faculty development programmes, continuing education, and competency enhancement activities.

7.13 Student–Patient Ratio

The college/institute shall have hospital/clinical practicing facility of its own or an MoU/contract with practicing facility. The practicing facility shall have 1:5 student-to-patient ratio in the ophthalmology OPD.

Capacity requirement of clinical practicing facility to be enhanced in multiples of minimum intake capacity requirements in case of proposed enhancement of seats.

A stand-alone college may sign an MoUs/ contracts with up to five different practicing facilities/ hospitals with minimum five years of tenure, while a practicing facility/hospital can be attached with a maximum of two colleges subject to the capacity.

Suggested minimum clinical exposure standards may include:

- A minimum of 50 daily ophthalmology OPD attendance
- Exposure to refraction clinics
- Exposure to ophthalmic diagnostic procedures
- Exposure to cataract and minor ophthalmic surgical procedures
- Community eye screening activities

The recommended student-to-clinical supervisor ratio should preferably remain manageable to ensure adequate supervision and competency assessment.

7.14 OPD and IPD Requirements

The affiliated hospital should preferably maintain functioning ophthalmology outpatient and inpatient services.

OPD Requirements

- The ophthalmology OPD should provide exposure to:
- General ophthalmology clinics
- Refraction services
- Diagnostic ophthalmology
- Paediatric ophthalmology exposure
- Cataract and glaucoma services
- Community ophthalmology activities

IPD Requirements

Where inpatient services are available, students should receive supervised exposure to:

- Pre-operative patient care
- Post-operative patient care
- OT preparation systems
- Ward management systems
- Infection prevention practices

Institutions without dedicated IPD facilities should establish affiliation with recognized ophthalmic hospitals to ensure adequate clinical exposure.

7.15 Memorandum of Understanding (MoU) Requirements

Institutions without a complete ophthalmic clinical infrastructure may establish a formal MoU with recognised eye hospitals, medical colleges, ophthalmology centres, or speciality eye care institutions for clinical training.

The MoU should clearly define:

- Nature of clinical postings
- Student intake capacity
- Responsibilities of both institutions
- Clinical supervision arrangements
- Access to diagnostic and OT facilities
- Internship provisions
- Assessment and logbook requirements

The affiliated clinical facility should possess adequate ophthalmic patient load, qualified supervisors, diagnostic services, and operating theatre exposure necessary for competency-based ophthalmic assistant training.

7.16 Quality Assurance and Periodic Review

Institutions conducting the programme should establish internal quality assurance mechanisms for monitoring academic standards, clinical exposure, student performance, faculty development, and infrastructure adequacy.

Periodic review of:

- Curriculum implementation
- Clinical competency outcomes
- Equipment maintenance
- Faculty development
- Student feedback
- Patient safety practices

should be undertaken to ensure continuous improvement in programme quality.

7.17 Diploma Awarding Authority

Upon acquiring the accreditation approval from the State Allied and Healthcare Council/NCAHP, the following may award D.OA certification:

- A Central Government / State government/Union Territory Health University/State Medical Faculty.
- Directorate of Medical Education, State Government/Union Territory.
- State/Union Territory Allied and Healthcare Council Education Board.

The following organisations shall be eligible to apply for permission to offer the D.OA programme, namely:

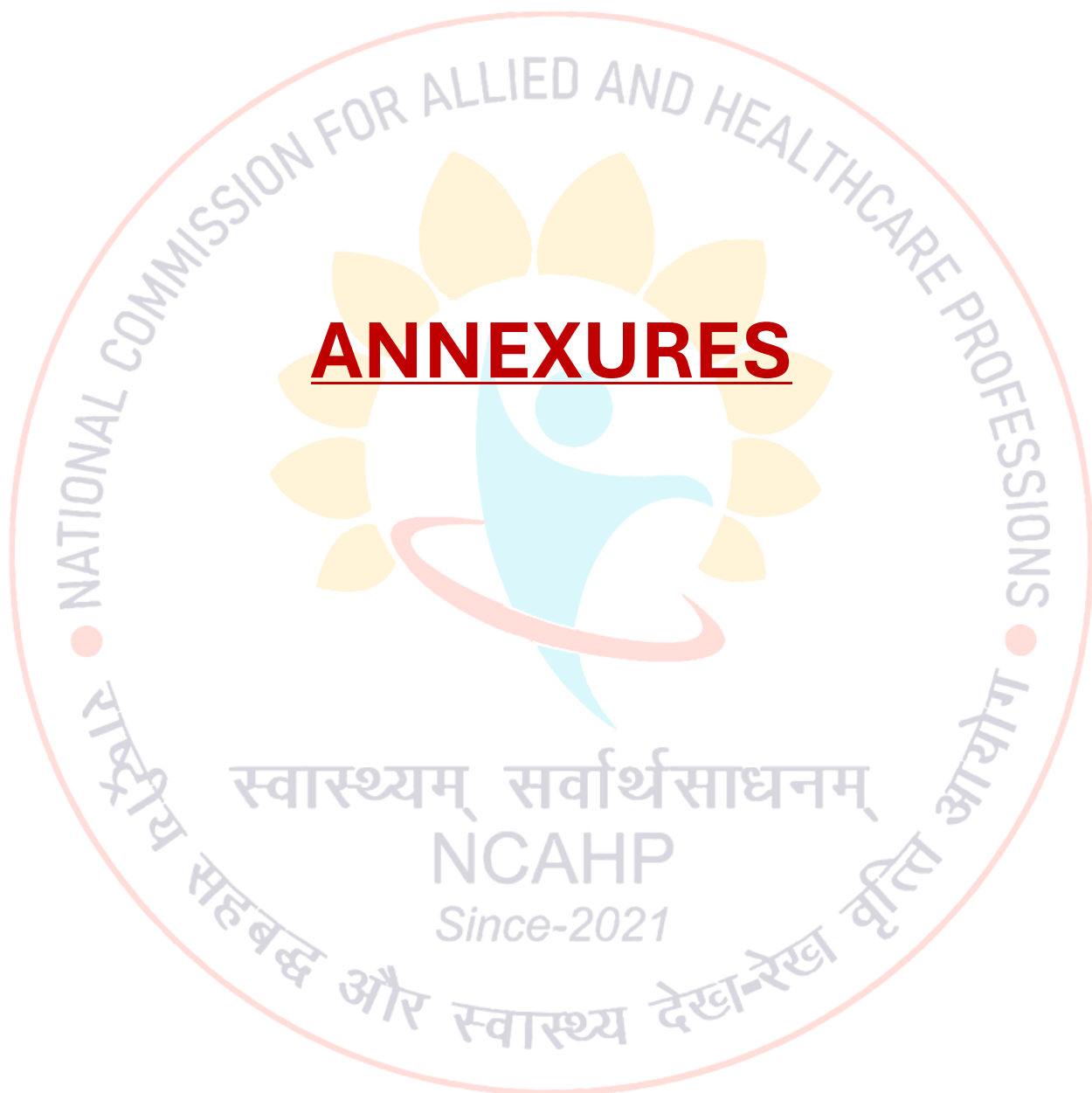
- Medical and allied and healthcare colleges of a State Government/Central Government/Union Territory having an ophthalmology and optometry services.
- A University/Deemed to be a university affiliated/having with not-for-profit tertiary eye hospital having an ophthalmology and optometry services.
- An autonomous body promoted by the Central and State Governments by or under a Statute for the purpose of medical education, having ophthalmology and optometry services.
- A society registered under the Societies Registration Act, 1860 (21 of 1860) or corresponding Acts in States affiliated to not-for-profit tertiary eye hospitals.
- A public religious or charitable trust registered under the Trust Act, 1882 (2 of 1882) or the WAKFS Act, 1954 (29 of 1954), affiliated to not-for-profit tertiary eye hospitals.

7.18 Conclusion

The minimum standards described in this chapter are intended to ensure that institutions conducting the Diploma in Ophthalmic Assistant programme maintain adequate academic infrastructure, clinical training facilities, qualified faculty, and supervised patient exposure, necessary for competency-based ophthalmic assistant education.

These standards aim to support the production of competent, ethical, patient-centred, and professionally responsible OA/VT capable of functioning effectively within supervised ophthalmic healthcare systems while maintaining patient safety, professional accountability, and quality healthcare delivery.





ANNEXURES

Annexure I

Programme and Course Outcomes

A. Programme Outcomes (POs)

The Diploma in Ophthalmic Assistant (D.OA) programme is designed to produce competent ophthalmic support professionals capable of functioning effectively within supervised ophthalmic healthcare systems. Upon successful completion of the programme, the graduate should demonstrate adequate knowledge, practical competency, professional behaviour, communication skills, and ethical conduct required for ophthalmic assistant practice under the supervision of qualified ophthalmologists.

The programme outcomes define the broad professional capabilities expected of an entry-level Ophthalmic Assistant.

PO 1 – Foundational Biomedical Knowledge

The graduate shall demonstrate understanding of basic human anatomy, physiology, ocular anatomy, ocular physiology, and ophthalmic sciences necessary for safe and effective ophthalmic assistance practice.

PO 2 – Ophthalmic Clinical Assistance Competency

The graduate shall be able to assist ophthalmologists (as per ISCO Code 3256) in ophthalmic clinical procedures, patient preparation, visual assessment, refraction assistance, and supervised ophthalmic diagnostic procedures.

PO 3 – Refraction and Vision Assessment Skills

The graduate shall demonstrate competency in visual acuity assessment, basic vision screening, trial frame handling, lens identification, pupillary distance measurement, and supervised refraction assistance procedures.

PO 4 – Ophthalmic Diagnostic Assistance

The graduate shall be able to assist in ophthalmic diagnostic procedures including slit lamp assistance, tonometry assistance, OCT preparation, fundus imaging assistance, visual field testing assistance, and ophthalmic workflow management.

PO 5 – Operation Theatre and Sterilisation Competency

The graduate shall demonstrate competency in ophthalmic operation theatre assistance, sterilisation procedures, infection prevention protocols, biomedical waste management, patient preparation, and maintenance of OT discipline under supervision.

PO 6 – Infection Prevention and Patient Safety

The graduate shall demonstrate adherence to infection prevention protocols, safe clinical practices, biomedical waste management procedures, occupational safety measures, and patient safety standards within healthcare settings.

PO 7 – Communication and Professional Behaviour

The graduate shall demonstrate effective communication skills, patient counselling abilities, teamwork, professional ethics, workplace discipline, empathy, and respectful patient interaction.

PO 8 – Community Eye Care Participation

The graduate shall be able to participate in community ophthalmology programmes, vision screening activities, blindness prevention initiatives, outreach eye camps, referral services, and public awareness programmes.

PO 9 – Documentation and Digital Competency

The graduate shall demonstrate competency in clinical documentation, maintenance of ophthalmic records, electronic medical record systems, digital healthcare platforms, and basic teleophthalmology workflow systems.

PO 10 – Lifelong Learning and Professional Development

The graduate shall recognize the importance of continuous learning, professional development, ethical practice, evidence-based healthcare, and adaptation to evolving ophthalmic technologies and healthcare systems.

B. Course Outcomes (COs)

Course outcomes define the specific competencies and learning achievements expected from students after completion of individual subjects and semesters within the programme.

B. Course Learning Outcomes (CLOs)

Semester I

Subject Code: D.OA 101
Course Title: General & Ocular Anatomy

CLO 1: Describe the gross anatomy of the human body, including cells, tissues, organs, and organ systems relevant to ophthalmic practice.

CLO 2: Explain the anatomy of the eye, ocular adnexa, visual pathways, and associated neurovascular structures using appropriate anatomical terminology.

CLO 3: Correlate the anatomical features of ocular and systemic structures with their physiological functions and clinical significance in eye care.

CLO 4: Identify normal ocular structures and recognise common congenital and acquired anatomical abnormalities relevant to ophthalmic practice.

CLO 5: Apply anatomical knowledge to support safe patient examination, ophthalmic procedures, and clinical decision-making under professional supervision.

Subject Code: D.OA 102
Course Title: General & Ocular Physiology

CLO 1: Explain the physiological functions of major body systems and their influence on ocular health and vision.

CLO 2: Describe the physiology of ocular tissues, accommodation, pupillary reflexes, ocular motility, tear secretion, and intraocular pressure regulation.

CLO 3: Explain the physiological mechanisms of vision, colour perception, binocular vision, and visual processing.

CLO 4: Relate normal physiological processes to common refractive errors and ocular disorders encountered in ophthalmic practice.

CLO 5: Interpret basic physiological findings during ophthalmic assessment to assist clinicians in patient care.

Subject Code: D.OA 103
Course Title: Physical & Geometrical Optics

CLO 1: Explain the fundamental principles governing the behaviour of light and its interaction with optical media.

CLO 2: Apply the laws of reflection, refraction, vergence, and image formation to ophthalmic optics and vision correction.

CLO 3: Differentiate the optical properties and clinical applications of mirrors, lenses, prisms, polarized light, and lasers used in ophthalmology.

CLO 4: Interpret optical phenomena and their relevance to ophthalmic instruments, diagnostic procedures, and visual performance.

CLO 5: Apply basic optical principles to support refraction, ophthalmic instrumentation, and patient care in clinical practice.

Subject Code: D.OA 104
Course Title: Computer Education and Digital Health Basics

CLO 1: Demonstrate proficiency in the use of computers, operating systems, office applications, and digital communication tools used in healthcare.

CLO 2: Prepare clinical documents, spreadsheets, presentations, and digital records using standard software applications.

CLO 3: Utilise electronic health records, hospital information systems, teleophthalmology platforms, and digital imaging systems to support ophthalmic services.

CLO 4: Apply principles of data privacy, cybersecurity, confidentiality, and ethical digital practices while handling patient information.

CLO 5: Employ digital technologies effectively for healthcare documentation, communication, patient management, and lifelong learning.

Subject Code: D.OA 105

Course Title: Professional Ethics, Communication, and Patient Safety

CLO 1: Demonstrate professional ethics, integrity, accountability, and legal responsibilities expected of an Ophthalmic Assistant.

CLO 2: Communicate effectively and compassionately with patients, caregivers, and members of the healthcare team using appropriate verbal, written, and interpersonal communication skills.

CLO 3: Apply ethical principles related to patient rights, informed consent, confidentiality, documentation, and professional conduct during clinical practice.

CLO 4: Demonstrate patient-centred care by practicing empathy, cultural sensitivity, teamwork, and effective conflict resolution in healthcare settings.

CLO 5: Apply patient safety principles, effective communication strategies, and professional etiquette to promote quality eye care services.

Subject Code: D.OA 106

Course Title: Clinical Techniques – Lab I

CLO 1: Demonstrate appropriate hospital orientation, patient registration procedures, and clinical workflow under supervision.

CLO 2: Perform accurate measurement of distance and near visual acuity using standard vision assessment charts following accepted clinical protocols.

CLO 3: Identify commonly used ophthalmic instruments and describe their indications, handling, maintenance, and safety precautions.

CLO 4: Demonstrate correct patient positioning, infection prevention practices, hand hygiene, and universal precautions during ophthalmic procedures.

CLO 5: Perform basic ophthalmic clinical techniques with accuracy, professionalism, effective communication, and adherence to patient safety standards under supervision

Semester II

Subject Code: D.OA 201

Course Title: Optics of the Eye and Ophthalmic Optics

CLO 1: Explain the optical principles of the human eye, including image formation, accommodation, and the optical components involved in vision.

CLO 2: Differentiate common refractive errors and describe their optical correction using ophthalmic lenses, prisms, and other vision correction devices.

CLO 3: Identify the characteristics, clinical applications, and handling of ophthalmic lenses, prisms, and basic optical instruments used in eye care.

CLO 4: Demonstrate the principles of basic refraction assistance and optical measurements during supervised ophthalmic procedures.

CLO 5: Apply ophthalmic optics concepts to assist ophthalmologists (as per ISCO Code 3256) in vision assessment and optical dispensing under supervision.

Subject Code: D.OA 202

Course Title: Ocular Diseases

CLO 1: Describe the etiology, clinical features, and classification of common disorders affecting the anterior and posterior segments of the eye.

CLO 2: Identify the signs and symptoms of common ophthalmic diseases requiring timely referral and management.

CLO 3: Explain the principles of prevention, diagnosis, and basic management of ocular diseases within the scope of an Ophthalmic Assistant.

CLO 4: Recognize ophthalmic emergencies and red flag conditions requiring immediate referral to an ophthalmologist.

CLO 5: Assist in patient preparation, documentation, and counselling for individuals with common ocular disorders under supervision.

Subject Code: D.OA 203

Course Title: General & Ocular Biochemistry

- CLO 1:** Explain the biochemical composition and metabolism of carbohydrates, proteins, lipids, enzymes, vitamins, and electrolytes relevant to human health.
- CLO 2:** Describe the biochemical composition of ocular tissues and fluids and their role in maintaining normal visual function.
- CLO 3:** Correlate systemic metabolic disorders with their ocular manifestations and clinical significance.
- CLO 4:** Interpret basic biochemical concepts relevant to ophthalmic investigations and patient care.
- CLO 5:** Apply biochemical knowledge to support safe clinical practice and patient education under professional supervision.

Subject Code: D.OA 204

Course Title: Microbiology, Pathology, and Pharmacology

- CLO 1:** Explain the principles of microbiology, pathology, and pharmacology relevant to ophthalmic practice and patient safety.
- CLO 2:** Identify common microorganisms, pathological processes, and infectious diseases affecting the eye and describe methods for their prevention and control.
- CLO 3:** Describe the indications, mechanisms of action, storage, administration, and adverse effects of commonly used ophthalmic medications.
- CLO 4:** Demonstrate safe handling of ophthalmic drugs while adhering to infection prevention, aseptic techniques, and medication safety protocols.
- CLO 5:** Apply microbiological, pathological, and pharmacological principles while assisting in ophthalmic procedures and patient care under supervision.

Subject Code: D.OA 205

Course Title: Public Health and Community Eye Care

CLO 1: Explain the principles of public health, community ophthalmology, and blindness prevention programmes relevant to India.

CLO 2: Participate effectively in community vision screening programmes, school eye health initiatives, outreach activities, and referral services.

CLO 3: Identify common causes of blindness and visual impairment and describe strategies for prevention and early detection.

CLO 4: Demonstrate effective communication skills while conducting health education, awareness programmes, and patient counselling in community settings.

CLO 5: Apply community eye care principles to support preventive ophthalmic services, referral systems, and public health initiatives under supervision.

Subject Code: D.OA 206

Course Title: Clinical Techniques Lab – II

CLO 1: Demonstrate competency in basic ophthalmic examination techniques, including torchlight examination, external eye examination, and periocular assessment.

CLO 2: Perform colour vision testing, trial frame handling, and assist in objective and subjective refraction procedures under supervision.

CLO 3: Assist in anterior segment evaluation using keratometry, slit lamp biomicroscopy, and tonometry while following standard clinical protocols.

CLO 4: Recognize ocular emergencies, apply appropriate referral protocols, and maintain accurate clinical documentation.

CLO 5: Demonstrate professional behaviour, infection prevention practices, patient safety measures, and effective communication during practical ophthalmic procedures.

Subject Code: D.OA 207
Course Title: Clinical Postings – I

CLO 1: Demonstrate professional conduct, effective communication, and ethical behaviour while participating in supervised ophthalmic clinical postings.

CLO 2: Assist in visual assessment procedures, preliminary ophthalmic examinations, patient preparation, and clinical workflow under supervision.

CLO 3: Apply infection prevention, sterilization, biomedical waste management, and patient safety practices during clinical activities.

CLO 4: Maintain accurate clinical records, electronic documentation, and patient confidentiality according to institutional protocols.

CLO 5: Integrate theoretical knowledge with supervised clinical experience to develop competency in ophthalmic assistance and multidisciplinary teamwork



Semester III

Subject Code: D.OA 301

Course Title: Operation Theatre Techniques and Sterilisation Procedures

CLO 1: Explain the organisation, workflow, safety protocols, and ethical practices of an ophthalmic operation theatre.

CLO 2: Demonstrate aseptic techniques, surgical hand preparation, personal protective equipment (PPE) usage, and infection prevention measures during ophthalmic surgical procedures.

CLO 3: Perform cleaning, disinfection, sterilisation, storage, and handling of ophthalmic surgical instruments and equipment according to standard protocols.

CLO 4: Identify ophthalmic surgical instruments, prepare sterile instrument trays, and assist in patient preparation for ophthalmic surgeries under supervision.

CLO 5: Apply operation theatre protocols, biomedical waste management practices, and patient safety principles while assisting in ophthalmic surgical procedures.

Subject Code: D.OA 302

Course Title: Emergency Eye Care & First Aid

CLO 1: Explain the principles of emergency eye care, ophthalmic triage, and the role of an Ophthalmic Assistant in managing ocular emergencies.

CLO 2: Identify common ocular emergencies, including trauma, chemical injuries, foreign bodies, acute painful eye conditions, and sudden vision loss requiring immediate referral.

CLO 3: Demonstrate appropriate first aid measures and emergency management protocols for ocular injuries while maintaining patient safety and infection control.

CLO 4: Assist in the assessment, stabilization, documentation, and referral of patients presenting with ophthalmic emergencies under professional supervision.

CLO 5: Communicate effectively with patients and healthcare professionals during emergency situations while maintaining ethical and professional standards.

Subject Code: D.OA 303

Course Title: Hospital Inventory and Supplies

CLO 1: Explain the principles and importance of hospital inventory management in ophthalmic healthcare facilities.

CLO 2: Identify ophthalmic consumables, surgical supplies, diagnostic equipment, and sterile materials used in ophthalmic practice.

CLO 3: Demonstrate appropriate storage, stock maintenance, documentation, and handling procedures for ophthalmic inventory while maintaining quality assurance standards.

CLO 4: Apply inventory control methods, procurement procedures, and stock monitoring techniques to ensure uninterrupted ophthalmic services.

CLO 5: Evaluate inventory management practices to promote cost-effective resource utilization, patient safety, and efficient hospital operations.

Subject Code: D.OA 304

Course Title: Teleophthalmology & Home Care

CLO 1: Explain the concepts, scope, and applications of teleophthalmology and home-based eye care services in modern ophthalmic practice.

CLO 2: Demonstrate the use of digital communication technologies, electronic medical records, and teleconsultation platforms for ophthalmic service delivery.

CLO 3: Assist in remote patient assessment, documentation, follow-up, and patient counselling under the supervision of an ophthalmologist.

CLO 4: Apply ethical principles, patient confidentiality, data security, and legal requirements while providing teleophthalmology services.

CLO 5: Integrate teleophthalmology and home care services to improve accessibility, continuity of care, and patient-centred ophthalmic healthcare.

Subject Code: D.OA 305
Course Title: Clinical Postings – II

CLO 1: Demonstrate competency in assisting with advanced ophthalmic examination procedures, diagnostic investigations, and patient preparation during supervised clinical postings.

CLO 2: Perform ophthalmic diagnostic assistance, including tonometry, OCT preparation, fundus imaging assistance, and visual field testing support while adhering to standard clinical protocols.

CLO 3: Apply infection prevention measures, patient safety practices, effective communication, and professional ethics during clinical care.

CLO 4: Maintain accurate clinical documentation, electronic medical records, and patient confidentiality while participating in multidisciplinary healthcare delivery.

CLO 5: Integrate theoretical knowledge with supervised clinical experience to develop competency in ophthalmic assistance, clinical reasoning, and teamwork.

Subject Code: D.OA 306
Course Title: Operation Theatre Postings – I

CLO 1: Demonstrate professional behaviour, aseptic techniques, and operation theatre discipline during supervised ophthalmic surgical postings.

CLO 2: Assist in patient preparation, sterile draping, instrument handling, and operation theatre workflow while maintaining patient safety.

CLO 3: Perform sterilisation procedures, instrument tray preparation, biomedical waste management, and operation theatre documentation according to institutional protocols.

CLO 4: Assist ophthalmologists and operation theatre personnel during minor and major ophthalmic surgical procedures while maintaining sterile practices.

CLO 5: Integrate operation theatre competencies with effective teamwork, communication, ethical conduct, and infection prevention practices to provide safe ophthalmic surgical support.

Semester IV (Internship)

Subject Code: D.OA 401

Course Title: Internship – Outpatient Departments

CLO 1: Demonstrate competency in assisting with patient registration, history taking, visual assessment, and preliminary ophthalmic examinations in outpatient clinics under supervision.

CLO 2: Assist in refraction workflow, ophthalmic diagnostic procedures, patient preparation, and clinical documentation using standard operating procedures and electronic medical records (EMRs).

CLO 3: Perform ophthalmic clinical assistance activities, including slit lamp assistance, tonometry preparation, OCT preparation, fundus imaging support, and visual field testing while adhering to patient safety protocols.

CLO 4: Communicate effectively with patients, caregivers, and members of the multidisciplinary healthcare team while demonstrating professionalism, ethical conduct, and patient-centred care.

CLO 5: Integrate theoretical knowledge and practical competencies to provide safe, efficient, and ethical ophthalmic assistance across outpatient, diagnostic, optical dispensing, and community ophthalmology services under supervision.

Subject Code: D.OA 402

Course Title: Internship – Operation Theatre

CLO 1: Demonstrate competency in ophthalmic operation theatre protocols, including surgical hand preparation, aseptic techniques, infection prevention, and biomedical waste management during supervised clinical practice.

CLO 2: Prepare patients, instruments, sterile trays, and operation theatre equipment for ophthalmic surgical procedures while maintaining sterile field integrity and patient safety.

CLO 3: Assist ophthalmologists and the surgical team during ophthalmic procedures through safe instrument handling, operation theatre workflow coordination, and adherence to institutional protocols.

CLO 4: Maintain accurate operation theatre records, inventory documentation, sterilisation records, and post-operative patient care documentation while ensuring confidentiality and professional accountability.

CLO 5: Demonstrate readiness for independent professional practice by integrating clinical competence, communication skills, teamwork, ethical behaviour, and evidence-based patient care during supervised ophthalmic surgical postings.

Annexure II

Credit Distribution and Hours Mapping

A. Introduction

The Diploma in Ophthalmic Assistant (D.OA) programme follows a competency-based semester and credit system integrating theory teaching, practical training, supervised clinical exposure, skill laboratory activities, self-directed learning, and internship-based clinical competency development.

The curriculum has been structured to ensure a balanced distribution of the academic workload and the progressive acquisition of competencies necessary for ophthalmic assistant practice under supervision. Credits have been assigned considering classroom teaching hours, practical and laboratory sessions, clinical postings, community activities, and internship training requirements.

The programme has also been broadly aligned with the competency framework and the educational structure of the Optometry curriculum to facilitate academic equivalence, competency mapping, and possible lateral-entry pathways, subject to institutional and regulatory norms.

The programme's total training hours exceed 2000, including theory, practical, clinical postings, self-directed learning, and internship components.

B. Credit Calculation Framework

For the purpose of this curriculum, the following broad equivalence may be considered:

Academic Component	Credit Equivalence
1 Hour Theory Teaching per Week/Semester	1 Credit
2 Hours Practical/Laboratory/Clinical posting per Week/Semester	1 Credit
1 semester = ~15 weeks	
Internship Posting	Credit-based supervised clinical training

Institutions and universities may adjust credit calculations in accordance with applicable academic regulations while maintaining minimum competency and training-hour requirements.

C. Clinical Exposure Distribution

The curriculum incorporates progressive supervised clinical exposure throughout all semesters to ensure gradual competency development and workplace readiness.

Clinical exposure includes:

- Ophthalmology outpatient departments
- Refraction clinics
- Diagnostic ophthalmology units
- Optical dispensing units
- Community eye screening programmes
- Ophthalmic operation theatre exposure
- Low vision and rehabilitation services
- Teleophthalmology orientation

The integrated clinical approach enables students to correlate theoretical learning with practical patient care activities.

D. Skill Laboratory and Practical Training Distribution

Skill laboratory and practical training components include:

- Visual acuity assessment
- Refraction assistance
- Trial frame handling
- Instrument identification
- Ophthalmic diagnostic assistance
- OT assistance
- Sterilisation procedures
- Biomedical waste management
- Patient counselling
- Documentation systems
- EMR exposure
- Community screening activities

Practical competencies are progressively assessed through competency checklists, practical examinations, logbook documentation, and clinical supervision.

E. Self-Directed Learning and Academic Activities

In addition to scheduled teaching hours, students are encouraged to participate in:

- Self-directed learning
- Library activities
- Seminars and presentations
- Community outreach programmes

- Digital learning modules
- Case discussions
- Skill demonstrations
- Reflective learning exercises

Institutions may allocate additional academic hours for co-curricular and competency enhancement activities.

F. Credit Transfer and Academic Progression

The curriculum has been broadly aligned with competency-based Optometry education frameworks to support future academic mobility and lateral-entry pathways, wherever permissible under institutional and regulatory norms.

Credit mapping and competency equivalence may be considered by institutions for:

- Bridge courses
- Lateral entry programmes
- Academic credit transfer
- Advanced standing assessments

subject to the fulfilment of prescribed competency and academic requirements.

G. Conclusion

The credit distribution and hours mapping framework described in this annexure ensures balanced integration of theoretical education, practical skill development, supervised clinical exposure, and internship-based competency consolidation within the Diploma in Ophthalmic Assistant (D.OA) programme.

The curriculum structure has been designed to support competency-based ophthalmic assistant education, workplace readiness, patient safety, professional accountability, and alignment with evolving allied healthcare education standards in India.

Annexure III

Assessment Scheme and Blueprint

A. Introduction

The assessment system for the Diploma in Ophthalmic Assistant (D.OA) programme has been designed in accordance with competency-based principles of allied healthcare education, with emphasis on the evaluation of theoretical knowledge, practical competency, clinical performance, communication skills, professional behaviour, ethical conduct, and workplace readiness.

The assessment framework aims to ensure that students acquire the minimum competencies required for safe and effective ophthalmic assistant practice under supervision. The assessment process includes continuous internal assessment, practical competency evaluation, clinical performance monitoring, semester-end examinations, internship assessment, and logbook evaluation.

The assessment system additionally emphasises:

- Continuous competency development
- Practical skill assessment
- Clinical reasoning support
- Patient safety practices
- Communication and professionalism
- Workplace-based learning evaluation

Separate passing criteria shall ordinarily be maintained for theory and practical examinations to ensure balanced competency acquisition.

B. Components of Assessment

The programme assessment system shall ordinarily include:

Component	Nature of Assessment
Theory Examination	Written evaluation
Practical Examination	Skill and procedure assessment
Viva Voce	Oral examination
Internal Assessment	Continuous assessment
Clinical Assessment	Workplace-based evaluation
Logbook Assessment	Competency documentation
Internship Assessment	Clinical performance evaluation
Professional Behaviour Assessment	Ethics and professionalism

C. Distribution of Marks

General Assessment Pattern

Component	Marks Distribution
Theory Examination	70 Marks
Internal Assessment (Theory)	30 Marks
Practical Examination	70 Marks
Internal Assessment (Practical/Clinical)	30 Marks
Total per Subject	200 Marks

D. Passing Criteria

Students shall ordinarily be required to obtain:

- Minimum 50% marks separately in theory
- Minimum 50% marks separately in practical/clinical examination
- Minimum required attendance
- Satisfactory completion of logbook and clinical competencies
- Successful completion of internship requirements

Failure in either the theory or practical component may require re-appearance as per institutional regulations.

E. Internal Assessment Scheme

Internal assessment shall be competency-based and continuous throughout the semester.

Internal assessment may include:

Assessment Activity	Suggested Weightage
Class Tests	10 Marks
Assignments/Seminars	5 Marks
Practical Skill Assessment	5 Marks
Clinical Performance	5 Marks
Attendance and Professional Behaviour	5 Marks
Total	30 Marks

Institutions may modify the internal assessment pattern while maintaining competency-based evaluation principles.

F. Theory Examination Pattern

Theory examinations shall evaluate:

- Conceptual understanding
- Applied ophthalmic knowledge
- Clinical relevance
- Analytical understanding
- Professional and ethical awareness

The question paper may include:

- Long answer questions
- Short notes
- Structured questions
- Clinical application-based questions
- Objective-type questions wherever appropriate

G. Suggested Theory Question Paper Blueprint

Theory Examination Blueprint (70 Marks)

Section	Type of Questions	Marks
Section A	Short Answer Questions (10 × 2)	20
Section B	Short Notes (5 × 6)	30
Section C	Long Essay Questions (2 × 10)	20
Total		70 Marks

H. Cognitive Domain Weightage

Theory examinations should preferably assess a range of cognitive levels.

Cognitive Domain	Suggested Weightage
Knowledge and Recall	30%
Understanding and Comprehension	30%
Application and Clinical Correlation	30%
Analytical and Problem-Solving Skills	10%

I. Practical Examination Scheme

Practical examinations shall focus on:

- Skill demonstration
- Clinical competency
- Patient handling
- Instrument handling
- Documentation skills
- Infection prevention practices
- Communication and professionalism

Practical examinations may include direct observation of procedures and OSCE/OSPE-based assessment wherever feasible.

J. Suggested Practical Examination Blueprint

Practical Examination Pattern (70 Marks)

Component	Marks
Clinical Procedure Demonstration	20
Instrument Identification and Handling	10
Visual Assessment/Refraction Assistance	10
OT/Diagnostic Procedure Assistance	10
Viva Voce	10
Logbook/Record Assessment	10
Total	70 Marks

K. Objective Structured Clinical Examination (OSCE)

Institutions are encouraged to incorporate OSCE-based assessment methods wherever feasible.

OSCE stations may include:

- Visual acuity assessment
- Trial frame handling
- Instrument identification
- Sterile hand washing
- Biomedical waste segregation
- Patient communication
- Documentation exercises
- Diagnostic assistance procedures

OSCE systems improve objectivity, standardisation, and competency-based assessment.

L. Clinical Assessment

Clinical assessment shall be conducted continuously during:

- Clinical postings
- Skill laboratory sessions
- Diagnostic postings
- OT postings
- Community ophthalmology activities
- Internship postings

Clinical evaluation shall focus on:

- Procedural competency
- Professional behaviour
- Patient interaction
- Teamwork
- Communication
- Safety practices
- Documentation accuracy

M. Logbook Assessment

Students shall maintain:

- Practical logbooks
- Clinical competency records
- Internship records
- Community activity records
- Procedure observation and assistance records

Logbooks shall be verified periodically by supervising faculty.

Logbook assessment shall evaluate:

- Completion of procedures
- Competency achievement
- Attendance
- Professional conduct
- Supervisor remarks

N. Internship Assessment Scheme

Internship assessment shall be competency-based and workplace-oriented.

Assessment during internship may include:

Component	Suggested Weightage
Clinical Performance	30 Marks
Procedural Competency	20 Marks
Logbook Evaluation	20 Marks
Professional Behaviour	10 Marks
Viva Voce	20 Marks
Total	100 Marks

Successful completion of the internship assessment shall be mandatory for the award of the diploma.

O. Professional Behaviour and Ethics Assessment

Professional behaviour assessment shall include evaluation of:

- Discipline and punctuality
- Communication skills
- Ethical conduct
- Respect toward patients and staff
- Infection prevention practices
- Teamwork
- Professional appearance
- Patient confidentiality

Unsatisfactory professional conduct may require counselling, remediation, or additional clinical training as per institutional policy.

P. Attendance Requirements for Examination Eligibility

Students shall ordinarily require:

- Minimum 75% attendance in theory
- Minimum 80% attendance in practical and clinical postings
- Completion of mandatory competency requirements

Students failing to meet attendance requirements may not be eligible to appear for examinations.

Q. Blueprint for Practical Skill Competency Assessment

The practical competency blueprint shall ensure progressive evaluation of essential ophthalmic assistant skills.

Semester I Competencies

- Visual acuity assessment
- Hand hygiene
- Instrument identification
- Patient communication
- Basic documentation

Semester II Competencies

- Trial frame handling
- Refraction assistance
- Slit lamp assistance
- Sterilisation procedures
- Biomedical waste management

Semester III Competencies

- Diagnostic assistance
- OCT and visual field preparation
- OT preparation
- Contact lens handling demonstration
- Community screening participation

Semester IV Competencies

- Advanced ophthalmic assistance
- Operation theatre workflow participation
- Emergency handling support
- EMR documentation
- Community ophthalmology coordination

Internship Competencies

- Comprehensive supervised ophthalmic assistance
- Refraction workflow support
- Diagnostic workflow management
- Operation theatre support services
- Patient counselling
- Clinical documentation
- Professional workplace conduct

R. Moderation and Quality Assurance

Institutions are encouraged to establish internal moderation systems to ensure:

- Standardisation of question papers
- Fairness in practical assessment
- Uniformity in competency evaluation
- Quality assurance in examination systems
- Periodic review of assessment methods

Assessment systems should be periodically reviewed and updated as advances in competency-based healthcare education occur.

S. Supplementary and Reassessment Examinations

Institutions may conduct supplementary or reassessment examinations, as per institutional regulations, for students who fail to meet the minimum passing criteria.

Remedial training and additional clinical postings may be prescribed where competency deficiencies are identified.

T. Conclusion

The assessment scheme and blueprint described in this annexure aim to ensure objective, competency-based, clinically relevant, and standardised evaluation of students enrolled in the Diploma in Ophthalmic Assistant (D.OA) programme.

The assessment framework supports the development of safe, ethical, skilled, and professionally competent OA/VT capable of functioning effectively within supervised ophthalmic healthcare systems while maintaining patient safety, professional accountability, and quality healthcare delivery standards.

Annexure IV

Clinical Posting Schedule

A. Introduction

Clinical postings are an essential component of the Diploma in Ophthalmic Assistant (D.OA) programme and are intended to provide students with supervised practical experience in real ophthalmic healthcare settings. Clinical training enables students to integrate theoretical knowledge with practical skills, improve patient interaction, understand clinical workflows, and develop competency in ophthalmic assistance procedures under supervision.

The clinical posting schedule has been designed to ensure progressive competency development across semesters through exposure to ophthalmology outpatient services, refraction clinics, ophthalmic diagnostic units, operation theatres, optical dispensing units, community ophthalmology programmes, and internship-based workplace training.

The clinical exposure framework aims to develop safe, ethical, skilled, and professionally responsible OA/VT who can function effectively within multidisciplinary ophthalmic healthcare teams.

B. Objectives of Clinical Postings

The clinical posting programme aims to:

- Provide supervised practical exposure in ophthalmic healthcare settings
- Develop competency in ophthalmic assistance procedures
- Improve patient handling and communication skills
- Facilitate integration of theory with clinical practice
- Strengthen infection prevention and patient safety practices
- Improve familiarity with ophthalmic instruments and equipment
- Develop understanding of ophthalmic workflow systems
- Promote professional behaviour and workplace discipline
- Facilitate exposure to community eye care services
- Prepare students for internship and workplace responsibilities

C. General Guidelines for Clinical Postings

Students undergoing clinical postings shall:

- Wear prescribed professional attire and identity cards
- Maintain punctuality and discipline
- Follow institutional infection prevention protocols
- Maintain patient confidentiality
- Work only under supervision

- Maintain clinical logbooks and attendance records
- Follow biomedical waste management protocols
- Respect institutional rules and patient dignity
- Demonstrate professional communication and ethical conduct

Clinical postings shall be supervised by qualified ophthalmologists, NCAHP-registered optometrists, clinical instructors, or designated faculty members.

D. Semester-wise Clinical Posting Schedule

Semester I Clinical Techniques – Lab I

Objectives

The first-semester clinical exposure is introductory and *focuses on orientation to healthcare systems*, ophthalmic clinics, patient interaction, and basic ophthalmic procedures.

Posting Areas and Duration

Clinical Area	Suggested Duration
Ophthalmology OPD Orientation	2 Weeks
Refraction Clinic Observation	1 Week
Optical Dispensing Observation	1 Week
Skill Laboratory Exposure	Continuous
Community Vision Screening Observation	As feasible

Competencies Expected

Students should be able to:

- Identify ophthalmic clinical areas
- Observe patient registration systems
- Perform basic visual acuity assessment
- Identify common ophthalmic instruments
- Demonstrate hand hygiene procedures
- Observe patient interaction protocols
- Maintain basic clinical records

Semester II Clinical Posting Schedule

Objectives

The second semester focuses on the *development of practical skills* related to visual assessment, ophthalmic instruments, refraction assistance, and infection prevention procedures.

Posting Areas and Duration

Clinical Area	Suggested Duration
Ophthalmology OPD	2 Weeks
Refraction and Vision Assessment Clinic	2 Weeks
Ophthalmic Diagnostic Unit	1 Week
Optical Dispensing Unit	1 Week
Sterilisation/CSSD Observation	1 Week
Community Eye Screening Activities	As scheduled

Competencies Expected

Students should be able to:

- Record visual acuity accurately
- Assist in refraction procedures
- Handle trial frames and trial lenses
- Identify ophthalmic instruments
- Prepare patients for basic ophthalmic examination
- Follow sterilisation and infection control protocols
- Maintain clinical documentation

Semester III Clinical Posting Schedule

Objectives

The third semester emphasises the development of intermediate-level competencies in ophthalmic diagnostics, operating theatre procedures, community ophthalmology, and supervised patient care.

Posting Areas and Duration

Clinical Area	Suggested Duration
Ophthalmology OPD	3 Weeks
Refraction Clinic	2 Weeks
Community Ophthalmology Programme	2 Weeks
Operation Theatre and Sterilisation Unit	7 Weeks

Competencies Expected

Students should be able to:

- Assist in slit lamp and tonometry procedures
- Assist in OCT and fundus imaging preparation
- Participate in the visual field-testing workflow
- Prepare OT trays and sterile materials
- Demonstrate OT discipline and aseptic precautions
- Assist in community vision screening
- Perform basic patient counselling

Semester IV Internship Clinical Posting Schedule

Objectives

The internship posting schedule is intended to consolidate all practical competencies acquired during academic semesters and to provide extensive supervised clinical exposure in the workplace.

Internship Posting Areas and Duration

Posting Area	Suggested Duration
Ophthalmology Outpatient Department (OPD)	2 Weeks
Refraction and Vision Assessment Clinic	2 Weeks
Ophthalmic Diagnostic Services	2 Weeks
Operation Theatre and Sterilisation Unit	12 Weeks
Optical Dispensing Unit	2 Weeks
Community Ophthalmology and Vision Screening	2 Weeks
Elective/Integrated Posting	2 Week

Internship Competencies

During internship, students should be able to:

- Perform visual acuity assessment independently under supervision
- Assist in refraction procedures
- Prepare patients for ophthalmic investigations
- Assist in diagnostic procedures
- Assist in operation theatre workflow
- Maintain sterilization protocols
- Handle ophthalmic instruments appropriately
- Maintain patient records and documentation
- Participate in community eye screening programmes
- Demonstrate professional ethics and workplace discipline

E. Community Ophthalmology Posting

Objectives

Community postings aim to expose students to public health ophthalmology and blindness prevention activities.

Activities Included

Students may participate in:

- School vision screening programmes
- Rural eye camps
- Public awareness programmes
- Diabetic retinopathy awareness activities
- Cataract screening programmes
- Teleophthalmology-supported outreach services
- Referral and follow-up coordination

F. Operation Theatre Posting

Objectives

OT postings are intended to develop competency in:

- OT discipline
- Sterile techniques
- Instrument handling
- Patient preparation
- Sterilization procedures
- Biomedical waste management

Exposure Areas

Students may observe or assist under supervision in:

- Cataract surgery OT
- Minor ophthalmic procedures
- Intravitreal injection setup
- Lacrimal syringing setup
- Dressing and injection preparation
- OT cleaning and sterilization procedures

G. Diagnostic Posting Exposure

Students shall receive supervised exposure to:

- Slit lamp assistance
- Tonometry assistance
- OCT patient preparation
- Visual field testing
- Fundus imaging
- Keratometry observation
- Ophthalmic imaging workflow systems

H. Student–Supervisor Ratio During Clinical Postings

Clinical supervision should preferably maintain manageable student–faculty ratios to ensure adequate competency development and patient safety.

Recommended ratios may include:

Clinical Area	Suggested Ratio
OPD Posting	1 Faculty: 10 Students
Diagnostic Posting	1 Faculty: 5 Students
OT Posting	1 Faculty: 5 Students
Community Posting	1 Faculty: 10 Students

Institutions may adjust ratios according to clinical infrastructure and patient load.

I. Attendance Requirements During Clinical Postings

Students shall ordinarily maintain:

- Minimum 75% attendance during semester clinical postings
- Minimum 80% attendance during internship

Students failing to fulfil attendance requirements may be required to repeat postings or undergo additional clinical training.

J. Clinical Logbook Requirements

Students shall maintain clinical logbooks documenting:

- Posting attendance
- Procedures observed
- Procedures assisted
- Competencies achieved
- Community activities
- Faculty remarks
- Reflective learning activities

Logbooks shall be verified periodically by supervising faculty.

K. Assessment During Clinical Postings

Clinical performance assessment may include:

- Direct observation of procedural skills
- Practical demonstrations
- Viva voce examinations
- Clinical competency checklists
- Logbook assessment
- Professional behaviour evaluation
- Communication skills assessment

Continuous feedback should be provided to students for improvement of clinical competency and professional behaviour.

L. Safety and Ethical Considerations

Students undergoing clinical postings shall:

- Work only under supervision
- Follow infection prevention protocols
- Respect patient confidentiality
- Avoid unauthorised procedures
- Maintain professional conduct
- Ensure patient dignity and comfort

Institutions should ensure safe and supervised learning environments during all clinical postings.

M. Conclusion

The clinical posting schedule described in this annexure is intended to facilitate structured, supervised, competency-based clinical training for students enrolled in the Diploma in Ophthalmic Assistant programme. The progressive clinical exposure framework supports the development of practical skills, patient care abilities, professional conduct, and workplace readiness necessary for safe and effective ophthalmic assistant practice within supervised healthcare systems.



Annexure V

Competency Assessment Checklist

A. Introduction

Competency assessment forms an essential component of the competency-based Diploma in Ophthalmic Assistant (D.OA) programme. The purpose of competency assessment is to ensure that students acquire the minimum practical skills, professional behaviour, clinical competency, patient safety practices, and supervised procedural abilities required for functioning as entry-level OA/VT within healthcare settings.

The competency assessment checklist provides a structured framework for evaluating student performance during practical sessions, skill laboratory training, clinical postings, community activities, and internship training. The checklist enables continuous monitoring of student progress and helps ensure uniformity and standardization in practical competency evaluation across institutions.

Competencies should be assessed progressively throughout the programme using direct observation, skill demonstrations, clinical supervision, logbook verification, workplace-based assessment, and practical examinations.

B. General Guidelines for Competency Assessment

The following principles should guide competency assessment:

- Competencies shall be assessed under supervision
- Assessment should be continuous and progressive
- Direct observation of procedural skills should be encouraged
- Patient safety and infection prevention practices must be emphasised
- Communication and professionalism should be assessed alongside technical skills
- Students should demonstrate competency before independent supervised performance
- Feedback and remediation should be provided where necessary
- Competency records should be documented in logbooks and assessment forms

C. Competency Assessment Rating Scale

The following rating scale may be used for competency assessment:

Rating	Description
NY	Not Yet Competent
D	Developing
C	Competent
E	Exceeds Expectations
NA	Not Applicable

Faculty may additionally include remarks and recommendations wherever required.

D. Semester I Competency Assessment Checklist

Basic Clinical Orientation and Foundational Skills

Sl. No.	Competency	NY	D	C	E	Faculty Initials	Date
1	Demonstrates professional behaviour and punctuality	☐	☐	☐	☐		
2	Demonstrates effective communication with patients	☐	☐	☐	☐		
3	Performs hand hygiene according to protocol	☐	☐	☐	☐		
4	Uses PPE appropriately	☐	☐	☐	☐		
5	Identifies hospital departments and patient workflow	☐	☐	☐	☐		
6	Performs patient registration accurately	☐	☐	☐	☐		
7	Obtains basic patient history under supervision	☐	☐	☐	☐		
8	Measures distance visual acuity correctly	☐	☐	☐	☐		
9	Measures near visual acuity correctly	☐	☐	☐	☐		
10	Identifies common ophthalmic instruments	☐	☐	☐	☐		
11	Demonstrates correct patient positioning	☐	☐	☐	☐		
12	Demonstrates infection prevention practices	☐	☐	☐	☐		

Sl. No.	Competency	NY	D	C	E	Faculty Initials	Date
13	Maintains patient confidentiality	☐	☐	☐	☐		
14	Demonstrates safe instrument handling	☐	☐	☐	☐		
15	Maintains professional documentation	☐	☐	☐	☐		

E. Semester II Competency Assessment Checklist

The competencies will directly correspond to D.OA 201–207 and include approximately **30–35 competencies**, such as:

Sl. No.	Competency	NY	D	C	E	Faculty Initials
1	Optical instrument handling					
2	Lens identification					
3	Trial frame handling					
4	Colour vision testing					
5	Objective refraction assistance					
6	Slit lamp preparation					
7	Keratometry assistance					
8	Tonometry assistance					
9	Drug instillation					
10	Infection control					
11	Patient counselling					
12	Community vision screening					
13	Clinical documentation					
14	Clinical posting competencies					

F. Semester III Competency Assessment Checklist

Diagnostic and OT Assistance Competencies

Sl. No.	Competency	NY	D	C	E	Faculty Initials
1	OT discipline					
2	Surgical hand scrub					
3	Sterile gowning and gloving					
4	Sterilisation procedures					
5	Instrument tray preparation					
6	OT inventory management					
7	Biomedical waste segregation					
8	Emergency eye care					
9	Chemical injury management					
10	Foreign body first aid					
11	Teleophthalmology workflow					
12	Diagnostic assistance (OCT, Fundus camera, Visual Fields)					
13	Clinical communication					
14	Professional behaviour					

G. Sem IV. Internship Competency Assessment Checklist

Comprehensive Competencies

OPD

Sl. No.	Competency	NY	D	C	E	Faculty Initials
1	Patient history					
2	Visual assessment					
3	Refraction assistance					
4	Slit lamp assistance					
5	OCT preparation					
6	Fundus photography					
7	Visual field testing					
8	Documentation					
9	Patient counselling					

OT

Sl. No.	Competency	NY	D	C	E	Faculty Initials
1	Patient preparation					
2	Surgical safety checklist					
3	Sterile field maintenance					
4	Instrument identification					
5	Instrument passing					
6	OT workflow					
7	Biomedical waste management					
8	Post-operative patient care					
9	OT documentation					

H. Communication and Professional Behaviour Checklist

S. No.	Competency	Satisfactory	Needs Improvement	Faculty Signature
1	Respectful patient interaction			
2	Communication with the healthcare team			
3	Professional appearance			
4	Punctuality and discipline			
5	Maintenance of patient confidentiality			
6	Ethical behaviour			
7	Teamwork			
8	Responsibility and accountability			

I. Faculty Remarks and Remediation Record

Date	Deficiency Identified	Remedial Action Suggested	Faculty Signature

J. Final Competency Certification

Student Declaration

I hereby certify that I have completed the required competencies and clinical procedures prescribed under the Diploma in Ophthalmic Assistant programme under appropriate supervision.

Student Name: _____

Roll Number: _____

Signature of Student: _____

Date: _____

Faculty Certification

This is to certify that the above student has satisfactorily completed the prescribed competency requirements and practical training components under supervision as per curriculum guidelines.

Name of Faculty/Clinical Supervisor: _____

Designation: _____

Signature: _____

Date: _____

Head of Institution Certification

Certified that the competency assessment records have been verified and the student has completed the prescribed practical and clinical competency requirements of the Diploma in Ophthalmic Assistant programme.

Name of Head of Institution: _____

Signature: _____

Seal of Institution: _____

Date: _____

Annexure VI

Clinical Logbook Format

A. Introduction

The Clinical Logbook is an essential academic and professional record maintained by students enrolled in the Diploma in Ophthalmic Assistant (D.OA) programme. The purpose of the suggested logbook is to document clinical exposure, practical competencies, supervised procedures, attendance, professional behaviour, and workplace-based learning experiences acquired throughout the programme and internship.

The logbook serves as:

- A record of competency development
- Evidence of clinical exposure
- A tool for continuous assessment
- A mechanism for faculty supervision and feedback
- Documentation of procedural training
- Proof of completion of prescribed clinical requirements

Every student shall maintain the clinical logbook regularly and present it for verification during practical examinations, internal assessments, clinical postings, and internship evaluation.

B. General Guidelines for Maintenance of Logbook

Students shall adhere to the following guidelines:

- Entries should be made regularly and legibly
- Clinical procedures should be documented immediately after completion
- All entries should be verified by supervising faculty or clinical preceptor
- Attendance should be maintained accurately
- Corrections should be countersigned by faculty
- False or fabricated entries shall not be permitted
- Logbooks should be submitted periodically for review
- The completed logbook shall form part of final assessment

Failure to maintain the logbook properly may result in non-completion of clinical requirements.

C. Student Information Page

Particular	Details
Name of Student	
Roll Number	
Registration Number	
Programme	Diploma in Ophthalmic Assistant (D.OA)
Academic Session	
Name of Institution	
Student Contact Number	
Email ID	
Blood Group	
Emergency Contact	

D. Clinical Posting Record

Semester-wise Clinical Posting Summary

Semester	Clinical Area	Duration	Attendance	Faculty Signature
Semester I				
Semester II				
Semester III				
Semester IV				
Internship				

E. Daily Clinical Attendance Record

Date	Posting Area	Time In	Time Out	Activities Performed	Faculty Signature

F. Semester I Clinical Competency Record

Basic Ophthalmic Skills

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
1	Hand hygiene					
2	PPE usage					
3	Visual acuity assessment					
4	Near vision testing					
5	Patient positioning					
6	Instrument identification					
7	Biomedical waste segregation					
8	Basic documentation					

G. Semester II Clinical Competency Record

Refraction and Diagnostic Assistance Skills

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
1	Trial frame adjustment					
2	Trial lens handling					
3	Lens neutralization					
4	Colour vision testing					
5	Refraction assistance					
6	Slit lamp assistance					
7	Eye drop instillation					
8	Sterilisation tray preparation					
9	Clinical documentation					

H. Semester III Clinical Competency Record

OT and Advanced Diagnostic Competencies

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
1	Tonometry assistance					
2	OCT patient preparation					
3	Fundus imaging assistance					
4	Visual field-testing assistance					
5	OT gowning and gloving					
6	Sterile tray preparation					
7	Instrument sterilization					
8	Contact lens handling					
9	Community screening participation					

I. Semester IV Clinical Competency Record

Advanced Clinical Assistance Competencies

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
1	Advanced refraction assistance					
2	Diagnostic workflow coordination					
3	EMR documentation					
4	OT workflow participation					
5	Patient preparation for surgery					
6	Optical dispensing assistance					

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
7	Emergency ophthalmic assistance					
8	Teleophthalmology exposure					
9	Community eye camp participation					

J. Internship Clinical Posting Record

Internship Posting Summary

Posting Area	Duration	Attendance	Supervisor Signature
Ophthalmology OPD			
Refraction Clinic			
Diagnostic Services			
Operation Theatre			
Optical Dispensing Unit			
Community Ophthalmology			
Low Vision Services			

K. Internship Procedure Record

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Supervisor Signature
1	Visual acuity assessment					
2	Refraction workflow assistance					
3	Slit lamp assistance					
4	Tonometry assistance					
5	OCT and imaging preparation					
6	Visual field-testing assistance					

S. No.	Procedure/ Competency	Observed	Assisted	Performed Under Supervision	Date	Supervisor Signature
7	OT preparation and support					
8	Sterilization procedures					
9	Optical dispensing assistance					
10	Community screening participation					
11	Patient counselling					
12	EMR documentation					

L. Community Ophthalmology Activity Record

Date	Activity	Location	Role Performed	Faculty Signature

M. Operation Theatre and Sterilisation Record

Procedure	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
OT gowning and gloving					
Sterile tray preparation					
Instrument sterilization					
Biomedical waste segregation					
Patient preparation for OT					
OT workflow management					

N. Diagnostic Procedures Record

Diagnostic Procedure	Observed	Assisted	Performed Under Supervision	Date	Faculty Signature
Tonometry					
OCT preparation					
Fundus imaging					
Visual field testing					
Keratometry					
Slit lamp assistance					

O. Reflective Learning Record

Students are encouraged to document important learning experiences during clinical postings.

Date	Learning Experience	Reflection/Observation	Faculty Remarks

P. Professional Behaviour Assessment Record

Parameter	Satisfactory	Needs Improvement	Faculty Signature
Professional appearance			
Punctuality			
Communication skills			
Teamwork			
Ethical behaviour			
Patient confidentiality			
Respectful patient interaction			

Q. Faculty Feedback and Remediation Record

Date	Deficiency Identified	Corrective Measures Suggested	Faculty Signature

R. Final Internship Completion Certificate

Student Declaration

I hereby certify that I have completed the prescribed clinical postings, practical competencies, internship requirements, and logbook entries under supervision as required under the Diploma in Ophthalmic Assistant programme.

Name of Student: _____

Signature of Student: _____

Date: _____

Clinical Supervisor Certification

Certified that the student has satisfactorily completed the prescribed clinical postings, competencies, and internship requirements under supervision.

Name of Clinical Supervisor: _____

Designation: _____

Signature: _____

Date: _____

Head of Institution Certification

Certified that the student has completed the prescribed clinical and internship requirements of the Diploma in Ophthalmic Assistant programme.

Name of Head of Institution: _____

Signature: _____

Institution Seal: _____

Date: _____

Annexure VII

Internship Guidelines and Posting Record

A. Introduction

The internship programme is a compulsory and integral component of the Diploma in Ophthalmic Assistant (D.OA) curriculum. The internship is intended to provide extensive supervised clinical exposure and workplace-based learning experiences within ophthalmic healthcare settings. It enables students to integrate theoretical knowledge, practical competencies, professional behaviour, communication skills, and patient care abilities acquired during the academic semesters into real clinical practice.

The internship phase serves as the transition period between academic training and professional ophthalmic assistant practice. During this period, interns are expected to actively participate in ophthalmic clinical services under supervision while maintaining patient safety, ethical conduct, infection prevention practices, and professional accountability.

The internship programme shall ordinarily be conducted in recognised ophthalmology departments, eye hospitals, vision centres, ophthalmic diagnostic units, community ophthalmology programmes, or affiliated healthcare institutions approved for clinical training.

B. Objectives of Internship

The internship programme aims to:

- Strengthen supervised practical competency in ophthalmic healthcare procedures
- Develop confidence in patient care and clinical assistance
- Facilitate integration of theory with clinical practice
- Improve communication and teamwork skills
- Develop professional ethics and workplace discipline
- Improve understanding of ophthalmic workflow systems
- Strengthen competency in diagnostics, refraction assistance, and operation theatre procedures
- Promote infection prevention and patient safety practices
- Facilitate participation in community eye care activities
- Prepare students for employment and professional responsibilities

C. Duration of Internship

The internship shall ordinarily be of six months' duration after successful completion of all prescribed academic semesters and examinations.

Students must complete:

- Mandatory clinical postings
- Attendance requirements
- Competency assessment requirements
- Internship logbook documentation
- Professional behaviour evaluation

D. General Guidelines for Internship

Interns shall:

- Work only under the supervision of qualified professionals
- Wear prescribed professional attire and identity cards
- Maintain punctuality and discipline
- Follow institutional infection prevention protocols
- Respect patient dignity and confidentiality
- Avoid unauthorised procedures
- Maintain accurate records and logbooks
- Demonstrate ethical and professional behaviour
- Participate actively in assigned clinical activities
- Follow biomedical waste management guidelines

Interns shall not independently:

- Diagnose ophthalmic diseases
- Prescribe medications
- Independently prescribe spectacles or contact lenses
- Perform invasive procedures without authorisation and supervision

E. Internship Posting Schedule

Suggested Internship Rotation Plan

Posting Area	Suggested Duration
Ophthalmology Outpatient Department (OPD)	2 Weeks
Refraction and Vision Assessment Clinic	2 Weeks
Ophthalmic Diagnostic Services	2 Weeks
Operation Theatre and Sterilisation Unit	12 Weeks
Optical Dispensing Unit	2 Weeks
Community Ophthalmology and Vision Screening	2 Weeks
Elective/Integrated Posting	2 Weeks

Institutions may adjust posting duration based on institutional infrastructure and patient load, while ensuring adequate competency exposure.

F. Posting Objectives and Expected Competencies

1. Ophthalmology Outpatient Department (OPD)

Objectives

- To familiarise interns with ophthalmic outpatient workflow
- To improve patient interaction and documentation skills
- To develop competency in patient preparation and ophthalmic assistance

Expected Competencies

The intern should be able to:

- Receive and guide patients appropriately
- Record visual acuity
- Assist in ophthalmic examination procedures
- Maintain patient records and documentation
- Demonstrate patient communication skills
- Assist elderly and paediatric patients appropriately

2. Refraction and Vision Assessment Clinic

Objectives

- To strengthen competency in vision assessment procedures
- To provide supervised exposure to refraction assistance

Expected Competencies

The intern should be able to:

- Record distance and near visual acuity
- Perform colour vision assessment
- Handle trial frames and lenses
- Assist in refraction procedures
- Measure pupillary distance
- Assist in spectacle dispensing workflow

3. Ophthalmic Diagnostic Services

Objectives

- To provide exposure to ophthalmic diagnostic procedures
- To improve diagnostic workflow understanding

Expected Competencies

The intern should be able to:

- Prepare patients for diagnostic procedures
- Assist in OCT imaging procedures
- Assist in visual field testing
- Assist in fundus photography
- Maintain diagnostic records
- Handle ophthalmic equipment safely

4. Operation Theatre and Sterilization Unit

Objectives

- To develop competency in OT discipline and sterilization procedures
- To provide supervised exposure to ophthalmic surgical assistance

Expected Competencies

The intern should be able to:

- Maintain OT aseptic precautions
- Prepare sterile trays
- Identify ophthalmic surgical instruments
- Assist in patient preparation for surgery
- Perform sterilisation procedures
- Follow biomedical waste management protocols

Exposure to lacrimal syringing setup, dressing procedures, injection preparation, and minor ophthalmic procedures may be provided under supervision wherever feasible.

5. Optical Dispensing Unit

Objectives

- To familiarise interns with optical dispensing procedures
- To strengthen patient counselling related to spectacles

Expected Competencies

The intern should be able to:

- Assist patients in frame selection
- Identify lenses and coatings
- Assist in spectacle fitting and adjustment
- Counsel patients regarding spectacle care
- Maintain optical dispensing records

6. Community Ophthalmology and Vision Screening

Objectives

- To provide exposure to community eye care and blindness prevention activities
- To develop competency in outreach vision screening programmes

Expected Competencies

The intern should be able to:

- Participate in school vision screening
- Conduct supervised visual acuity assessment
- Assist in community eye camps
- Maintain referral documentation
- Participate in public awareness programmes
- Demonstrate community communication skills

7. Low Vision and Rehabilitation Services

Objectives

- To introduce interns to low vision rehabilitation concepts
- To provide exposure to rehabilitation support services

Expected Competencies

The intern should be able to:

- Observe low vision assessment procedures
- Understand rehabilitation devices
- Assist in patient counselling
- Participate in rehabilitation support services

G. Internship Attendance Requirements

Interns shall ordinarily maintain:

- Minimum 80% attendance during internship
- Completion of all mandatory postings
- Satisfactory clinical competency performance

Students failing to fulfil attendance requirements may be required to undergo an extension of the internship.

H. Internship Logbook Requirements

Interns shall maintain a detailed internship logbook documenting:

- Daily attendance
- Posting details
- Procedures observed
- Procedures assisted
- Competencies achieved
- Community activities
- Faculty remarks
- Reflective learning experiences

The internship logbook shall be verified regularly by supervising faculty or clinical supervisors.

I. Internship Posting Record Format

Internship Posting Attendance Record

Date	Posting Area	Time In	Time Out	Activities Performed	Supervisor Signature

J. Internship Procedure Record

S. No.	Procedure	Observed	Assisted	Performed Under Supervision	Date	Supervisor Signature
1	Visual acuity assessment					
2	Refraction assistance					
3	Trial frame adjustment					
4	Slit lamp assistance					
5	Tonometry assistance					
6	OCT patient preparation					
7	Visual field-testing assistance					
8	Fundus imaging assistance					
9	OT sterile tray preparation					
10	Instrument sterilization					
11	Biomedical waste segregation					
12	Optical dispensing assistance					
13	Community screening participation					
14	EMR documentation					
15	Patient counselling					

K. Professional Behaviour Assessment During Internship

Parameter	Satisfactory	Needs Improvement	Supervisor Signature
Punctuality			
Professional appearance			
Communication skills			
Teamwork			
Ethical behaviour			
Patient confidentiality			
Infection prevention compliance			
Workplace discipline			

L. Reflective Learning Record

Interns are encouraged to document important clinical learning experiences during the internship.

Date	Clinical Experience	Reflection/Learning Outcome	Supervisor Remarks

M. Community Outreach Activity Record

Date	Activity	Location	Role Performed	Faculty/Supervisor Signature

N. Internship Assessment Framework

Internship assessment shall be based upon:

- Clinical competency
- Procedural skills
- Communication abilities
- Professional behaviour
- Attendance
- Logbook completion
- Community participation
- Supervisor evaluation
- Viva voce examination

O. Internship Completion Requirements

Successful completion of the internship shall require:

- Completion of prescribed duration
- Completion of mandatory postings
- Satisfactory competency assessment
- Fulfilment of attendance requirements
- Submission of completed logbook
- Approval by supervising faculty and Head of Institution

P. Internship Completion Certificate

Student Declaration

I hereby certify that I have completed the prescribed internship postings, clinical procedures, competency requirements, and internship records under supervision as per curriculum guidelines.

Name of Student: _____

Signature of Student: _____

Date: _____

Supervisor Certification

Certified that the above student has satisfactorily completed the prescribed internship training and competency requirements under supervision.

Name of Clinical Supervisor: _____

Designation: _____

Signature: _____

Date: _____

Head of Institution Certification

Certified that the student has successfully completed the prescribed internship programme under the Diploma in Ophthalmic Assistant curriculum.

Name of Head of Institution: _____

Signature: _____

Institution Seal: _____

Date: _____



Annexure VIII

Minimum Standards for Infrastructure, Equipment, Learning Resources and Institutional Requirements

A. Introduction

Adequate infrastructure, ophthalmic equipment, learning resources, and clinical training facilities are essential for effective implementation of the competency-based Diploma in Ophthalmic Assistant (D.OA) programme. The quality of ophthalmic assistant education depends significantly upon the availability of appropriate teaching-learning environments, supervised clinical exposure, practical training facilities, simulation laboratories, ophthalmic instruments, digital learning systems, and qualified faculty support.

This annexure outlines the recommended infrastructure standards, equipment requirements, laboratory facilities, learning resources, and academic support systems necessary for institutions conducting the Diploma in Ophthalmic Assistant programme.

The requirements described herein are intended to ensure:

- Competency-based practical training
- Patient safety
- Adequate clinical exposure
- Skill laboratory training
- Effective teaching-learning processes
- Standardisation of educational quality
- Technology-integrated ophthalmic healthcare education

Institutions may expand facilities beyond the minimum requirements according to institutional capacity, specialisation, and student intake.

B. Academic Infrastructure Requirements

1. Classrooms

The institution should maintain adequate classrooms suitable for competency-based allied healthcare education.

Recommended Features

Classrooms should preferably include:

- Adequate seating capacity
- Proper lighting and ventilation
- Whiteboard/smart board facilities
- LCD projector and audiovisual systems

- Public address system, where feasible
- Internet connectivity
- Power backup systems
- Demonstration space for practical teaching

Suggested Area

Facility	Suggested Area
Classroom for 30–40 students	Minimum 500–700 sq. ft.

The classroom environment should support lectures, seminars, demonstrations, small-group discussions, and interactive teaching and learning activities.

2. Demonstration Room

A demonstration room should preferably be available for:

- Ophthalmic procedure demonstrations
- Instrument demonstrations
- Simulation-based teaching
- Skill demonstrations
- Case discussions

3. Faculty Rooms

Adequate faculty rooms should be provided for:

- Academic preparation
- Student mentoring
- Faculty discussions
- Administrative activities
- Record maintenance

Separate space for the Programme Coordinator/Head of Department is recommended.

4. Administrative Area

The institution should maintain administrative facilities including:

- Programme office
- Student records section
- Examination records area
- Reception/helpdesk
- Staff support area

C. Laboratory Facilities

1. Refraction and Ophthalmic Optics Laboratory

Purpose

The laboratory should support teaching and practical training related to:

- Visual assessment
- Refraction assistance
- Trial frame procedures
- Lens handling
- Spectacle dispensing

Recommended Equipment

Equipment	Suggested Quantity
Visual acuity charts	Adequate
Near vision charts	Adequate
Trial lens sets	Minimum 2–4
Trial frames	Minimum 2–4
Autorefractor	Minimum 1–2
Streak retinoscope	Minimum 1
Lensometer	Minimum 1
PD ruler/pupillometer	Minimum 1
Colour vision charts	Minimum 1
Trial lens accessories	Adequate

2. Ophthalmic Diagnostic Laboratory

Purpose

The diagnostic laboratory should facilitate training in:

- Ophthalmic diagnostic procedures
- Ophthalmic imaging systems
- Diagnostic workflow management
- Instrument handling

Recommended Equipment

Equipment	Suggested Availability
Slit lamp biomicroscope	Essential
Non-Contact tonometer	Essential
Autorefractometer	Essential
Keratometer	Desirable
Fundus camera	Desirable
OCT access	Preferably available
Visual field analyser access	Preferably available
A-scan/B-scan exposure	Desirable

Institutions may provide access to advanced diagnostic systems through affiliated hospitals if not available in-house.

3. Skill Laboratory/Simulation Laboratory

Purpose

The skill laboratory should facilitate:

- Simulation-based practical training
- Early skill acquisition
- Safe procedural demonstrations
- Competency-based learning

Suggested Training Activities

The skill laboratory should support:

- Visual acuity assessment
- Trial frame handling
- Instrument handling
- Patient positioning
- Hand hygiene and PPE usage
- OT gowning and gloving
- Biomedical waste segregation
- Documentation exercises
- Communication skill simulations

Recommended Equipment

Equipment	Suggested Availability
Ophthalmic models/charts	Adequate
Training mannequins (if available)	Desirable
PPE kits	Adequate
Biomedical waste bins	Essential
Sterilization trays	Essential
Mock documentation forms	Essential
Simulation instruments	Essential

4. Computer Laboratory

Purpose

The computer laboratory should support:

- Computer education
- EMR exposure
- Digital health orientation
- Teleophthalmology exposure
- Online learning

Recommended Facilities

Equipment	Suggested Quantity
Desktop computers	As per student strength
Internet connectivity	Essential
Projector system	Essential
Printer/scanner	Essential
EMR demonstration software	Desirable

Students should receive basic exposure to:

- Electronic medical records
- Digital healthcare systems
- Internet-based learning
- Teleophthalmology workflow systems

D. Operation Theatre and Sterilisation Facilities

Purpose

The institution or affiliated hospital should provide supervised exposure to:

- Ophthalmic operation theatre systems
- Sterilisation procedures
- OT workflow
- Biomedical waste management

Recommended Facilities

Facility	Requirement
Ophthalmic OT access	Essential
Sterilisation/CSSD unit	Essential
Autoclave	Essential
Surgical instrument sets	Essential
Sterile trays	Essential
PPE and sterile supplies	Essential
Biomedical waste disposal system	Essential

Students should receive supervised exposure to:

- Cataract surgery OT
- Minor ophthalmic procedures
- Sterilisation systems
- OT discipline and aseptic precautions

E. Optical Dispensing Unit

Purpose

The optical dispensing unit should facilitate:

- Spectacle dispensing training
- Lens identification
- Frame fitting
- Patient counselling

Recommended Equipment

Equipment	Suggested Availability
Spectacle frames	Adequate
Lens samples	Adequate
Lensometer	Essential
Frame adjustment tools	Essential
PD ruler/pupillometer	Essential

F. Library Requirements

Purpose

The library should support:

- Academic learning
- Self-directed learning
- Reference reading
- Evidence-based education
- Faculty development

Recommended Library Resources

The library should preferably include:

- Ophthalmology textbooks
- Ophthalmic optics books
- Community ophthalmology books
- Allied healthcare education books
- Professional ethics and healthcare management books
- Digital learning resources
- Journals and e-journals
- Internet-enabled academic access

Suggested Library Space

Facility	Suggested Area
Library and reading area	Minimum 500 sq. ft.

Adequate seating and reading facilities should be provided for students and faculty.

G. Journals and Digital Learning Resources

Institutions are encouraged to provide access to:

- Ophthalmology journals
- Allied healthcare journals
- Community eye health resources
- Digital ophthalmology platforms
- Online lectures and webinars
- E-books and learning modules

Suggested Journals

Journal/Resource	Suggested Access
Indian Journal of Ophthalmology	Recommended
Community Eye Health Journal	Recommended
Delhi Journal of Ophthalmology	Recommended
Allied healthcare education journals	Recommended
Optometry and Vision Science resources	Recommended

H. Clinical Training Facility Requirements

The affiliated hospital or eye care centre should provide adequate supervised clinical exposure.

Recommended Clinical Areas

The clinical facility should preferably include:

- Ophthalmology OPD
- Refraction clinic
- Diagnostic ophthalmology services
- Operation theatre
- Optical dispensing section
- Community ophthalmology services
- Low vision/rehabilitation exposure where feasible

Patient Load Requirements

The affiliated clinical facility should maintain adequate patient load to ensure meaningful clinical exposure in:

- Refraction services
- Cataract services
- Diagnostic procedures
- Community screening activities
- General ophthalmology clinics

I. Community Ophthalmology Resources

Institutions should encourage participation in:

- School vision screening programmes
- Rural outreach activities
- Community eye camps
- Public awareness activities
- Teleophthalmology outreach programmes

J. Digital Health and Teleophthalmology Resources

The institution should preferably provide exposure to:

- Electronic medical records
- Teleophthalmology systems
- AI-assisted screening awareness
- Digital imaging systems
- Online healthcare learning platforms

The curriculum encourages adaptation to evolving digital healthcare systems and ophthalmic technologies.

K. Learning Support Resources

Institutions are encouraged to provide:

- Skill demonstration videos
- Simulation-based teaching materials
- Clinical procedure manuals
- Practical competency checklists
- Clinical logbooks
- Student mentoring systems
- Remedial learning support
- Continuing education activities

L. Safety and Infection Prevention Resources

The institution should maintain:

- Hand hygiene stations
- PPE supplies
- Biomedical waste disposal systems
- Sterilisation facilities
- Emergency first aid kits
- Fire safety systems
- Occupational safety measures

Patient safety and infection prevention should remain integral to all practical and clinical training activities.

M. Recommended Institutional Support Services

Institutions are encouraged to provide:

- Student counselling support
- Mentorship systems
- Academic support services
- Hostel and sanitation facilities where feasible
- Recreational and common areas
- Transportation support for outreach activities where applicable

N. Quality Assurance and Maintenance

Institutions should establish mechanisms for:

- Equipment maintenance
- Calibration of ophthalmic instruments
- Periodic infrastructure review
- Library updating
- Digital resource enhancement
- Faculty development
- Student feedback systems

Regular maintenance of clinical and teaching infrastructure is essential for effective competency-based education.

O. Conclusion

The infrastructure, equipment, and learning resources described in this annexure are intended to support effective implementation of the competency-based Diploma in Ophthalmic Assistant curriculum. Adequate infrastructure and supervised clinical exposure are essential for producing competent, ethical, patient-centred, and professionally responsible OA/VT capable of functioning effectively within ophthalmic healthcare systems under appropriate supervision.

Annexure IX

Minimum Standards for Faculty Qualification, Staffing Pattern and Clinical Supervision

A. Introduction

Qualified faculty and adequate staffing are essential for the effective implementation of the competency-based Diploma in Ophthalmic Assistant (D.OA) programme. The quality of ophthalmic assistant education depends significantly upon the availability of experienced faculty members, clinical supervisors, ophthalmologists, NCAHP-registered optometrists, and skilled clinical instructors capable of providing competency-based teaching, supervised clinical exposure, and professional mentorship.

This annexure outlines the recommended faculty qualifications, staffing requirements, clinical supervision standards, and faculty development expectations necessary for institutions conducting the Diploma in Ophthalmic Assistant programme.

The staffing pattern described herein is intended to ensure:

- Effective theory teaching
- Adequate practical supervision
- Clinical training
- Patient safety during clinical exposure
- Standardised skill assessment
- Professional mentorship and guidance
- Proper student–faculty ratios

Institutions may appoint additional faculty and support staff depending upon student intake, institutional specialisation, patient load, and infrastructure availability.

B. Objectives of Faculty and Staffing Standards

The faculty and staffing standards aim to:

- Ensure competency-based ophthalmic assistant education
- Provide adequate clinical supervision
- Maintain patient safety during student training
- Promote professional ethics and accountability
- Support practical skill development
- Ensure appropriate student–faculty interaction
- Facilitate continuous academic and clinical mentorship
- Support research awareness and professional development
- Promote integration of digital health and modern ophthalmic technologies

C. General Principles for Faculty Appointment

Faculty appointed within the programme should:

- Possess appropriate academic qualifications
- Have adequate clinical competency and experience
- Demonstrate teaching ability and professional ethics
- Be registered with appropriate professional councils wherever applicable
- Participate in faculty development and continuing education activities
- Maintain professional conduct and accountability

Faculty involved in ophthalmic disease teaching, surgery-related instruction, and advanced ophthalmology topics should preferably include qualified ophthalmologists.

Faculty involved in refraction, ophthalmic optics, diagnostics, community ophthalmology, and practical ophthalmic procedures should preferably include NCAHP-registered optometrists and allied ophthalmic professionals.

D. Recommended Faculty Categories

Institutions conducting the programme may include the following categories of faculty and staff:

Category	Role
Programme Coordinator/Head	Academic and administrative leadership
Ophthalmology Faculty	Clinical ophthalmology teaching
Optometry Faculty	Optics, refraction, diagnostics, clinical teaching
Clinical Instructors	Practical and clinical supervision
Visiting Faculty	Specialized teaching support
Skill Laboratory Instructor	Simulation and practical training
Community Ophthalmology Coordinator	Outreach and screening activities
Computer/Digital Health Instructor	Digital health and EMR training
Support Staff	Technical and administrative assistance

E. Faculty Qualification Norms

1. Programme Coordinator / Head of Department

Recommended Qualification

The Programme Coordinator or Head of Department should preferably possess:

- Master's / PhD Degree in Optometry

along with:

- Teaching experience
- Administrative ability
- Clinical experience in ophthalmic healthcare

Responsibilities

The Programme Coordinator shall:

- Supervise curriculum implementation
- Coordinate academic and clinical activities
- Ensure competency-based teaching
- Monitor assessments and examinations
- Supervise internship and clinical postings
- Coordinate faculty development activities
- Maintain academic quality assurance systems

2. Faculty – Ophthalmic Sciences and Clinical Subjects

Recommended Qualification

Faculty teaching ophthalmic sciences subjects should preferably possess:

- Bachelor of Optometry (B.Optom) with clinical experience
OR
- Master of Optometry (MOptom)

Faculty should preferably be NCAHP-registered wherever applicable.

Areas of Teaching

Optometry faculty may teach:

- Ophthalmic optics
- Refraction assistance
- Diagnostic ophthalmology
- Community ophthalmology
- Contact lens basics
- Low vision basics
- Clinical ophthalmic procedures
- Digital ophthalmic systems

3. Faculty – Ophthalmology and Medical Subjects

Recommended Qualification

Faculty teaching ophthalmic diseases, medical ophthalmology, surgery-related topics, and advanced ophthalmic subjects should preferably possess:

- MBBS with MS/MD/DNB in Ophthalmology

and should preferably have:

- Clinical teaching experience
- Experience in ophthalmic surgery and patient care

Areas of Teaching

Ophthalmology faculty may teach:

- Ocular diseases
- Clinical ophthalmology
- Ophthalmic emergencies
- Surgical ophthalmology
- OT procedures
- Infection prevention
- Community blindness prevention programmes

4. Clinical Instructors/Clinical Supervisors

Recommended Qualification

Clinical instructors should preferably possess:

- B.Optom OR D.OA with the prescribed clinical experience, together with relevant clinical experience.

Responsibilities

Clinical instructors shall:

- Supervise clinical postings
- Assess practical competencies
- Verify logbooks
- Guide students during practical sessions
- Ensure patient safety and professional conduct
- Provide skill demonstrations and mentorship

5. Skill Laboratory Instructor

Recommended Qualification

The Skill Laboratory Instructor should preferably possess:

- B.Optom OR D.OA with the prescribed clinical experience, together with appropriate ophthalmic clinical/simulation experience

Responsibilities

The instructor shall:

- Conduct simulation-based training
- Demonstrate practical procedures
- Maintain laboratory equipment
- Assist in competency assessment
- Support practical examinations

6. Community Ophthalmology Coordinator

Recommended Qualification

The coordinator may possess:

- Optometry qualification
OR
- Public health/ophthalmic experience

Responsibilities

The coordinator shall:

- Organise outreach programmes
- Coordinate school screening activities
- Supervise community eye camps
- Maintain outreach records
- Facilitate blindness prevention activities

7. Computer and Digital Health Instructor

Recommended Qualification

The instructor may possess:

- Computer science qualification
OR
- Healthcare IT training experience

Responsibilities

The instructor shall:

- Teach computer education
- Provide EMR exposure
- Demonstrate digital healthcare systems
- Introduce teleophthalmology workflows
- Support digital documentation training

F. Recommended Staffing Pattern

Suggested Staffing Pattern for Intake up to 20 Students

Position	Minimum Recommended Number
Programme Coordinator/Head	1
Ophthalmology Faculty	1
Optometry Faculty	2
Clinical Instructor	2
Skill Laboratory Instructor	1
Community Ophthalmology Coordinator	1 (may be combined role)
Computer/Digital Health Instructor	1 (part-time/shared)
Administrative Staff	1
Support Staff/Attendant	1-2

Suggested Staffing Pattern for Intake up to 40 Students

Position	Minimum Recommended Number
Programme Coordinator/Head	1
Ophthalmology Faculty	2
Optometry Faculty	3-4
Clinical Instructor	3-4
Skill Laboratory Instructor	1
Community Ophthalmology Coordinator	1
Computer/Digital Health Instructor	1
Administrative Staff	1-2
Support Staff/Attendant	2-3

Institutions with larger intake capacities should proportionately increase faculty and clinical supervision strength.

G. Student–Faculty Ratio

To ensure effective competency-based training and patient safety, institutions should maintain appropriate student–faculty ratios.

Recommended faculty-to-student Ratios

Area	Suggested Ratio
Theory Teaching	1 Faculty: 15 Students
Practical Laboratory	1 Faculty: 10 Students
Clinical Posting	1 Clinical Supervisor: 5 Students
OT Posting	1 Supervisor: 5 Students
Diagnostic Posting	1 Supervisor: 5 Students

Lower ratios are encouraged during:

- OT training
- Diagnostic procedures
- Practical competency assessment
- Internship supervision

H. Categories of Faculty and Staff

Institutions conducting the programme may include the following categories:

Category	Primary Role
Programme Coordinator/Head	Academic leadership and administration
Ophthalmology Faculty	Clinical ophthalmology teaching
Optometry Faculty	Optics, refraction, diagnostics and clinical teaching
Clinical Instructors	Practical and clinical supervision
Skill Laboratory Instructor	Simulation and practical training
Community Ophthalmology Coordinator	Outreach and screening activities
Computer/Digital Health Instructor	EMR and digital health teaching
Visiting Faculty	Specialized teaching support
Administrative Staff	Institutional administration
Support Staff	Laboratory and logistics support

I. Minimum Qualifications Required for Faculty Positions

I.1 Programme Coordinator / Head of Department

Minimum Qualification

The Programme Coordinator or Head should preferably possess:

- Master's /PhD Degree in Optometry

with:

- Teaching experience
- Administrative capability
- Clinical experience in ophthalmic healthcare

Responsibilities

The Programme Coordinator shall:

- Supervise curriculum implementation
- Coordinate academic and clinical activities
- Ensure competency-based training
- Supervise assessments and examinations
- Monitor internship and clinical postings
- Facilitate quality assurance activities
- Coordinate faculty development programmes

I.2 Ophthalmology Faculty

Minimum Qualification

Faculty teaching ophthalmology-related subjects should preferably possess:

- MBBS with MS/MD/DNB Ophthalmology

Areas of Teaching

Ophthalmology faculty may teach:

- Ocular diseases
- Clinical ophthalmology
- Emergency eye care
- Surgical ophthalmology
- OT protocols and patient safety
- Infection prevention
- Community blindness prevention programmes

I.3 Optometry Faculty

Minimum Qualification

Faculty teaching optics, refraction, diagnostics, and related subjects should preferably possess:

- Bachelor of Optometry (B.Optom) with relevant clinical experience OR
- Master of Optometry (M.Optom), as applicable to the teaching responsibilities.

registered with NCAHP wherever applicable.

Competency Based Curriculum for “**Diploma in Ophthalmic Assistant (D.OA)**”

(Intellectual property of National Commission for Allied and Healthcare Professions, Ministry of Health and Family Welfare)

Areas of Teaching

Optometry faculty may teach:

- Ophthalmic optics
- Refraction assistance
- Dispensing optics
- Ophthalmic diagnostics
- Contact lens basics
- Low vision basics
- Community ophthalmology
- Teleophthalmology and digital health

I.4 Clinical Instructor

Minimum Qualification

Clinical instructors should preferably possess:

- B.Optom OR D.OA with the prescribed clinical experience, together with relevant clinical experience.

Responsibilities

Clinical instructors shall:

- Supervise practical sessions
- Guide students during clinical postings
- Verify logbooks and competency records
- Ensure patient safety during training
- Assist in practical examinations and OSCE/OSPE activities

I.5 Skill Laboratory Instructor

Minimum Qualification

The Skill Laboratory Instructor should preferably possess:

- B.Optom OR D.OA with the prescribed clinical experience, together with appropriate ophthalmic clinical/simulation experience

Responsibilities

The instructor shall:

- Conduct simulation-based teaching
- Demonstrate ophthalmic procedures
- Maintain laboratory equipment
- Assist in competency assessments
- Facilitate infection control demonstrations

I.6 Community Ophthalmology Coordinator

Minimum Qualification

The coordinator may preferably possess:

- Master of Optometry (MOptom) or PhD in Optometry

Responsibilities

The coordinator shall:

- Organize school screening programmes
- Coordinate eye camps and outreach activities
- Maintain community screening records
- Support public awareness activities
- Facilitate community eye care exposure

I.7 Computer and Digital Health Instructor

Minimum Qualification

The instructor may preferably possess:

- Computer science qualification
- OR
- Health informatics/digital health experience

Responsibilities

The instructor shall:

- Teach computer education
- Demonstrate EMR systems
- Provide teleophthalmology orientation
- Introduce digital healthcare systems
- Assist in digital documentation training

I.8 Visiting Faculty

Institutions may appoint visiting faculty for:

- Community ophthalmology
- Digital health
- Teleophthalmology
- OT management
- Infection prevention
- Professional ethics
- Hospital administration
- Research and evidence-based practice

J. Student–Faculty Ratio

To ensure competency-based training and patient safety, institutions should maintain appropriate student–faculty ratios.

Recommended Ratios

Area	Suggested Ratio
Theory Teaching	1 Faculty: 15 Students
Practical Laboratory	1 Faculty: 10 Students
Clinical Posting	1 Clinical Supervisor: 5–10 Students
OT Posting	1 Supervisor: 5 Students
Diagnostic Posting	1 Supervisor: 5 Students

Lower ratios are encouraged during:

- Operation Theatre postings
- Diagnostic procedures
- Internship supervision
- Skill assessments

K. Clinical Supervision Requirements

Clinical supervision should ensure:

- Safe patient care
- Appropriate student guidance
- Direct observation of procedures
- Competency-based learning
- Infection prevention compliance
- Ethical and professional conduct

Students shall not independently perform procedures beyond their training level and institutional authorization.

L. Faculty Responsibilities

Faculty members shall:

- Deliver theory and practical teaching
- Supervise laboratory and clinical activities
- Conduct assessments and examinations
- Verify logbooks and competency records
- Promote ethical conduct and patient safety
- Guide students professionally and academically
- Participate in institutional quality assurance systems

Faculty should additionally encourage:

- Evidence-based practice
- Digital health awareness
- Professional communication
- Community ophthalmology participation

M. Administrative and Support Staff Requirements

Institutions should preferably maintain adequate:

- Administrative staff
- Laboratory assistants
- Attendants/support staff
- IT support personnel
- Record maintenance personnel

Support staff should assist in:

- Laboratory preparation
- Equipment maintenance
- Clinical logistics
- Student coordination
- Examination arrangements

N. Faculty Development Programmes

Institutions should encourage faculty participation in:

- Continuing Professional Development (CPD)
- Continuing Medical Education (CME)
- Workshops and seminars
- Teaching methodology training
- Digital health and EMR orientation
- Infection prevention training
- Research and evidence-based practice orientation

Periodic faculty development activities should preferably be organized at institutional level.

O. Practicing Facility and Clinical Teaching Requirements

The affiliated clinical facility should preferably provide:

- Adequate patient load
- Diagnostic ophthalmology exposure
- OT exposure
- Refraction services
- Community ophthalmology exposure
- Infection prevention systems
- Biomedical waste management systems

Students should receive supervised exposure to:

- Ophthalmology OPD
- Refraction clinics
- Diagnostic services
- Operation theatre
- Community screening programmes

P. Quality Assurance and Monitoring

Institutions conducting the programme should establish systems for:

- Faculty appraisal
- Student feedback
- Academic audit
- Clinical supervision review
- Equipment maintenance
- Patient safety monitoring
- Examination quality assurance

Periodic review of staffing adequacy and faculty performance should be undertaken.

Q. Quality Assurance and Faculty Evaluation

Institutions should establish mechanisms for:

- Faculty appraisal
- Student feedback
- Peer review
- Academic audit
- Clinical supervision review
- Teaching quality monitoring

Periodic review of faculty performance and staffing adequacy should be undertaken to maintain academic quality standards.

R. Conclusion

The faculty qualification norms and staffing pattern described in this annexure are intended to ensure effective implementation of the competency-based Diploma in Ophthalmic Assistant (D.OA) programme through qualified teaching personnel, adequate clinical supervision, structured mentorship, and competency-based training systems.

Appropriate faculty strength, professional expertise, and supervised clinical teaching are essential for developing competent, ethical, patient-centred, and professionally responsible OA/VT capable of functioning effectively within supervised ophthalmic healthcare systems.

Annexure X

OSCE/OSPE Formats

A. Introduction

Objective Structured Clinical Examination (OSCE) and Objective Structured Practical Examination (OSPE) are competency-based assessment methods designed to evaluate clinical skills, practical competencies, communication abilities, professional behaviour, procedural understanding, and application of theoretical knowledge in simulated or supervised clinical settings.

The Diploma in Ophthalmic Assistant (D.OA) programme encourages the incorporation of OSCE/OSPE-based assessment methods to improve objectivity, reliability, standardisation, and competency-based evaluation of students during practical examinations, clinical postings, and internship assessments.

OSCE/OSPE methods are particularly useful for assessing:

- Visual assessment skills
- Refraction assistance
- Diagnostic assistance procedures
- OT assistance techniques
- Infection prevention practices
- Communication skills
- Documentation abilities
- Professional behaviour
- Patient safety competencies

B. Objectives of OSCE/OSPE

The OSCE/OSPE system aims to:

- Assess practical competencies objectively
- Standardise practical examinations
- Evaluate procedural skills systematically
- Assess communication and professionalism
- Improve reliability in practical assessment
- Promote competency-based learning
- Ensure patient safety awareness
- Evaluate workplace readiness

C. General Structure of OSCE/OSPE

The OSCE/OSPE examination may consist of multiple stations through which students rotate sequentially.

Each station may assess:

- A practical procedure
- Clinical reasoning
- Instrument identification
- Communication skills
- Documentation skills
- Problem-solving ability
- Infection prevention practices

Suggested Examination Structure

Parameter	Suggested Format
Number of Stations	8–15
Time per Station	3–7 Minutes
Rest Station	Optional
Observer-Based Stations	Included
Procedure-Based Stations	Included
Viva Stations	Optional

D. Types of OSCE/OSPE Stations

The examination may include:

Station Type	Description
Procedure Station	Demonstration of practical skills
Response Station	Written or verbal response
Instrument Station	Instrument identification
Communication Station	Patient interaction assessment
Documentation Station	Record-writing exercise
Image/Interpretation Station	Clinical image interpretation
Infection Control Station	Safety and sterilisation practices

E. Suggested OSCE/OSPE Stations – Semester I

Station 1 – Visual Acuity Assessment

Objective

To assess competency in performing visual acuity assessment.

Task

Perform distance visual acuity assessment using the Snellen chart.

Checklist

Competency Component	Marks
Patient positioning	1
Appropriate instruction to the patient	2
Correct occlusion technique	2
Accurate recording of findings	3
Communication and professionalism	2
Total	10

Station 2 – Hand Hygiene and PPE

Objective

To assess infection prevention competency.

Task

Demonstrate proper hand hygiene and PPE usage.

Checklist

Competency Component	Marks
Correct handwashing steps	4
Appropriate PPE usage	3
Biomedical waste awareness	1
Infection prevention understanding	2
Total	10

Station 3 – Instrument Identification

Objective

To assess the ability to identify ophthalmic instruments.

Task

Identify displayed ophthalmic instruments and mention their use.

Checklist

Competency Component	Marks
Correct identification	5
Correct usage explanation	3
Handling and safety awareness	2
Total	10

F. Suggested OSCE/OSPE Stations – Semester II

Station 4 – Trial Frame Adjustment

Objective

To assess competency in handling trial frames.

Task

Adjust and position a trial frame appropriately.

Checklist

Competency Component	Marks
Correct frame handling	3
Proper patient positioning	2
Accurate adjustment	3
Communication skills	2
Total	10

Station 5 – Lens Neutralisation

Objective

To assess lens identification skills.

Task

Neutralise the given lens and identify its type.

Checklist

Competency Component	Marks
Correct lens handling	2
Appropriate neutralisation technique	4
Correct identification	2
Documentation	2
Total	10

Station 6 – Eye Drop Instillation

Objective

To assess competency in medication administration assistance.

Task

Demonstrate proper eye drop instillation technique.

Checklist

Competency Component	Marks
Hand hygiene	2
Correct patient instruction	2
Proper instillation technique	4
Safety and infection prevention	2
Total	10

G. Suggested OSCE/OSPE Stations – Semester III

Station 7 – Tonometry Assistance

Objective

To assess competency in assisting with tonometry procedures.

Task

Prepare the patient and equipment for tonometry.

Checklist

Competency Component	Marks
Patient preparation	2
Equipment handling	3
Infection prevention	2
Communication skills	1
Documentation awareness	2
Total	10

Station 8 – OT Gowning and Gloving

Objective

To assess aseptic technique competency.

Task

Demonstrate OT gowning and gloving procedure.

Checklist

Competency Component	Marks
Correct gowning sequence	4
Correct gloving technique	4
Maintenance of sterility	2
Total	10

Station 9 – Biomedical Waste Segregation

Objective

To assess waste management competency.

Task

Segregate biomedical waste appropriately.

Checklist

Competency Component	Marks
Correct colour coding	4
Proper segregation technique	4
Safety awareness	2
Total	10

H. Suggested OSCE/OSPE Stations – Semester IV

Station 10 – OCT Patient Preparation

Objective

To assess competency in diagnostic assistance.

Task

Prepare patient for OCT imaging procedure.

Checklist

Competency Component	Marks
Patient communication	2
Positioning and instruction	3
Equipment preparation	2
Workflow understanding	2
Professional behaviour	1
Total	10

Station 11 – Patient Counselling

Objective

To assess communication and counselling skills.

Task

Counsel a patient regarding spectacle care and follow-up.

Checklist

Competency Component	Marks
Clarity of communication	3
Patient interaction	3
Correct counselling points	2
Professionalism	2
Total	10

Station 12 – EMR Documentation

Objective

To assess digital documentation competency.

Task

Enter patient information into a mock EMR format.

Checklist

Competency Component	Marks
Accuracy of documentation	4
Completeness of information	3
Digital workflow understanding	2
Professional conduct	1
Total	10

I. Suggested Internship OSCE/OSPE Stations

Station 13 – Integrated Clinical Assistance

Objective

To assess integrated ophthalmic assistance competency.

Task

Assist in a simulated ophthalmic patient workflow.

Checklist

Competency Component	Marks
Patient interaction	2
Visual assessment assistance	2
Instrument handling	2
Documentation	2
Professional behaviour	2
Total	10

Station 14 – Community Vision Screening

Objective

To assess competency in outreach screening.

Task

Perform vision screening in a simulated community setup.

Checklist

Competency Component	Marks
Visual acuity procedure	3
Communication skills	2
Referral awareness	2
Documentation	2
Professionalism	1
Total	10

J. Communication Skill OSCE Format

Suggested Scenario

A patient is anxious before undergoing an ophthalmic procedure.

Student Task

Communicate with the patient and explain the procedure.

Assessment Checklist

Parameter	Marks
Greeting and introduction	1
Listening skills	2
Empathy and reassurance	2
Clarity of explanation	3
Professional conduct	2
Total	10

K. Documentation OSPE Format

Suggested Task

Record visual acuity findings and patient details accurately in a clinical form.

Assessment Checklist

Parameter	Marks
Accuracy	4
Completeness	3
Legibility	2
Professional format	1
Total	10

L. Suggested Master Blueprint for OSCE/OSPE

Competency Domain	Suggested Weightage
Visual Assessment Skills	15%
Refraction Assistance	15%
Diagnostic Assistance	15%
OT and Sterilisation Skills	15%
Infection Prevention	10%
Communication Skills	10%
Documentation Skills	10%
Professionalism and Ethics	10%

M. Examiner Guidelines

Examiners conducting OSCE/OSPE should:

- Use standardised checklists
- Avoid subjective bias
- Assess only observable competencies
- Ensure equal difficulty across stations
- Provide structured scoring
- Maintain confidentiality and fairness
- Ensure patient safety during assessments

N. Student Instructions for OSCE/OSPE

Students should:

- Read station instructions carefully
- Maintain professional behaviour
- Follow infection prevention protocols
- Communicate appropriately
- Manage time effectively
- Demonstrate safe clinical practices

O. Infrastructure Requirements for OSCE/OSPE

Institutions conducting OSCE/OSPE examinations should preferably maintain:

- Separate skill stations
- Simulation equipment
- Ophthalmic instruments
- Documentation stations
- Standardised checklists
- Timing systems
- Trained examiners
- Adequate space and supervision

P. Advantages of OSCE/OSPE in Ophthalmic Assistant Education

OSCE/OSPE-based assessment:

- Improves objectivity
- Enhances competency-based evaluation
- Encourages practical skill development
- Promotes safe patient care
- Standardises assessment methods
- Assesses communication and professionalism
- Supports workplace readiness evaluation

Q. Conclusion

The OSCE/OSPE formats described in this annexure are intended to support structured, objective, competency-based assessment within the Diploma in Ophthalmic Assistant programme. These assessment methods strengthen practical competency evaluation, patient safety awareness, communication skills, professional behaviour, and workplace readiness necessary for effective ophthalmic assistant practice within supervised ophthalmic healthcare systems.

Annexure XI

Ethics, Professional Conduct and Patient Safety Guidelines

A. Introduction

Ethical practice, professional conduct, patient safety, and responsible healthcare behaviour form the foundation of allied and healthcare professional education. Ophthalmic Assistants function within sensitive clinical environments involving direct patient interaction, clinical procedures, operation theatre support, ophthalmic diagnostics, and community healthcare activities. Therefore, maintenance of professional ethics, workplace discipline, patient dignity, confidentiality, and safety standards is essential throughout academic training and future professional practice.

This annexure outlines the ethical principles, professional conduct standards, patient safety responsibilities, infection prevention measures, and behavioural expectations applicable to students, interns, faculty members, and institutions involved in the Diploma in Ophthalmic Assistant (D.OA) programme.

The guidelines are intended to promote:

- Ethical ophthalmic healthcare practice
- Respectful patient care
- Professional accountability
- Safe clinical behaviour
- Infection prevention compliance
- Workplace discipline
- Patient-centred healthcare delivery
- Professional integrity and teamwork

B. Objectives

The ethics and patient safety framework aims to:

- Promote ethical healthcare behaviour
- Ensure patient dignity and confidentiality
- Strengthen professional accountability
- Encourage safe clinical practices
- Promote infection prevention and biomedical safety
- Improve communication and interpersonal behaviour
- Strengthen teamwork within healthcare systems
- Prevent professional misconduct and negligence
- Promote responsible use of technology and digital records
- Develop patient-centred ophthalmic healthcare professionals

C. Fundamental Ethical Principles

All students and professionals associated with the programme should adhere to the following ethical principles:

1. Respect for Patient Dignity

Every patient should be treated with:

- Respect
- Compassion
- Empathy
- Courtesy
- Non-discrimination

Students and professionals shall respect patient privacy, emotional well-being, cultural values, and individual healthcare needs.

2. Beneficence

All healthcare activities should aim to:

- Promote patient welfare
- Support quality patient care
- Assist in improving visual health outcomes
- Facilitate safe and supervised ophthalmic care

3. Non-Maleficence

Students and professionals shall avoid actions that may:

- Harm patients
- Compromise patient safety
- Violate infection prevention protocols
- Lead to unsafe clinical practices

No procedure beyond the student's level of training and authorisation shall be performed independently.

4. Confidentiality

All patient-related information shall remain confidential.

Students and professionals shall:

- Protect patient records
- Avoid unauthorised disclosure of patient information
- Maintain confidentiality during discussions, documentation, and digital record handling
- Respect privacy during clinical examinations and procedures

5. Professional Integrity

Healthcare professionals shall demonstrate:

- Honesty
- Accountability
- Discipline
- Ethical behaviour
- Transparency in documentation and communication

Fabrication of records, false documentation, academic dishonesty, or unethical conduct shall not be permitted.

D. Professional Conduct Guidelines

1. General Professional Behaviour

Students and interns shall:

- Maintain professional appearance
- Wear prescribed uniforms and identity cards
- Maintain punctuality and discipline
- Demonstrate respectful communication
- Follow institutional rules and regulations
- Maintain proper behaviour within clinical and academic areas

Professional behaviour shall be maintained at all times during:

- Clinical postings
- Internship
- Community activities
- Operation theatre exposure
- Academic sessions
- Patient interactions

2. Communication Standards

Students and professionals shall:

- Communicate respectfully with patients and attendants
- Use understandable language while explaining procedures
- Demonstrate empathy and patience
- Avoid rude, discriminatory, or inappropriate language
- Communicate effectively with faculty and healthcare teams

Special care should be taken while interacting with:

- Elderly patients
- Paediatric patients
- Visually impaired individuals
- Anxious or distressed patients

3. Professional Boundaries

Students shall maintain appropriate professional boundaries with:

- Patients
- Attendants
- Faculty members
- Colleagues
- Healthcare staff

Unprofessional relationships or behaviour compromising patient care, institutional discipline, or professional integrity shall not be permitted.

4. Teamwork and Interprofessional Respect

Ophthalmic Assistants function within multidisciplinary healthcare teams. Students and professionals should therefore:

- Respect healthcare team members
- Cooperate with supervisors and colleagues
- Maintain professional teamwork
- Avoid workplace conflicts and disruptive behaviour
- Follow supervisory instructions appropriately

E. Patient Safety Guidelines

1. Safe Clinical Practice

Students and interns shall:

- Work only under supervision
- Perform only authorized procedures
- Follow institutional protocols
- Verify patient identity before procedures
- Ensure patient comfort and safety during examinations

Unsafe practices or negligence compromising patient safety shall not be tolerated.

2. Infection Prevention and Control

Strict infection prevention practices shall be followed in all clinical and practical settings.

Students and professionals shall:

- Perform proper hand hygiene
- Use PPE appropriately
- Follow sterilisation protocols
- Maintain OT asepsis
- Follow biomedical waste management guidelines
- Report exposure incidents promptly

3. Biomedical Waste Management

Students shall follow applicable biomedical waste management protocols, including:

- Segregation of waste
- Colour-coded disposal systems
- Safe sharps disposal
- Handling of contaminated materials

Improper disposal practices shall be considered serious professional misconduct.

4. Occupational Safety

Students and healthcare workers should maintain awareness regarding:

- Needle-stick injury prevention
- Chemical safety
- Electrical equipment safety
- Fire safety
- Ergonomic safety
- Emergency response protocols

Institutions should provide orientation regarding workplace safety procedures.

5. Patient Identification and Documentation Safety

Students shall:

- Verify patient identity before procedures
- Maintain accurate documentation
- Avoid documentation errors
- Ensure secure handling of records and digital data

Tampering with clinical records or inaccurate documentation shall not be permitted.

F. Ethical Conduct During Clinical Postings and Internship

During clinical postings and internships, students shall:

- Respect patient privacy
- Obtain permission before patient interaction, where applicable
- Follow supervisory instructions
- Avoid unauthorised photography or recording
- Maintain confidentiality of patient information
- Demonstrate professional communication and conduct
- Maintain accurate logbooks and records

Students shall not independently:

- Diagnose ophthalmic diseases
- Prescribe medications
- Perform invasive ophthalmic procedures without supervision
- Represent themselves as ophthalmologists or optometrists

G. Operation Theatre Ethics and Safety

Students posted in ophthalmic operation theatres shall:

- Maintain OT discipline
- Follow sterile protocols
- Avoid unnecessary movement and conversation
- Respect OT hierarchy and supervision
- Follow surgical asepsis strictly
- Handle instruments carefully
- Maintain patient confidentiality and dignity

Any breach of sterile protocols or OT safety practices should be reported immediately.

H. Digital Ethics and EMR Guidelines

With the increasing use of digital healthcare systems, students should maintain ethical behaviour regarding:

- Electronic medical records
- Patient data handling
- Digital communication
- Teleophthalmology systems

Students shall:

- Maintain confidentiality of digital records
- Avoid unauthorised access to patient information
- Use institutional systems responsibly
- Follow cybersecurity and password safety guidelines

Unauthorised sharing of patient images or data through social media or digital platforms shall be prohibited.

I. Community Ophthalmology Ethics

During community eye camps and outreach programmes, students shall:

- Respect local communities and cultural values
- Provide accurate health information
- Avoid false promises or misinformation
- Maintain professional conduct during outreach activities
- Ensure confidentiality and respectful patient interaction

Community programmes should prioritise patient welfare and ethical public health practice.

J. Academic Integrity

Students shall maintain academic honesty during:

- Examinations
- Assignments
- Practical assessments
- Logbook documentation
- Research activities

The following shall be considered misconduct:

- Cheating
- Plagiarism
- Fabrication of records
- Proxy attendance
- False competency documentation

Institutions should establish disciplinary mechanisms for academic misconduct.

K. Faculty Responsibilities Regarding Ethics and Safety

Faculty members shall:

- Serve as professional role models
- Ensure safe learning environments
- Supervise students appropriately
- Promote ethical conduct
- Ensure patient safety during student training
- Provide mentorship and counselling where necessary
- Encourage respectful professional behaviour

Faculty should additionally ensure:

- Fair assessment practices
- Non-discriminatory teaching environments
- Professional confidentiality
- Respectful student interaction

L. Institutional Responsibilities

Institutions conducting the programme should:

- Establish ethics and patient safety policies
- Provide orientation regarding professional conduct
- Maintain safe clinical learning environments
- Ensure infection prevention facilities
- Provide biomedical waste management systems
- Facilitate grievance redressal mechanisms
- Encourage professionalism and accountability

Institutions should additionally maintain mechanisms for:

- Reporting professional misconduct
- Addressing harassment or discrimination
- Student counselling and mentorship
- Patient safety monitoring

M. Suggested Code of Conduct for Students

Students enrolled in the programme shall:

- Respect patients, faculty, and staff
- Maintain professional discipline
- Wear prescribed attire
- Follow institutional regulations
- Maintain confidentiality
- Avoid substance abuse or misconduct
- Refrain from violence, harassment, or discriminatory behaviour
- Maintain ethical behaviour inside and outside clinical settings

Violation of institutional ethical guidelines may result in disciplinary action according to institutional policies.

N. Professionalism Assessment

Professional behaviour may be assessed during:

- Clinical postings
- Internship
- Practical examinations
- OSCE/OSPE assessments
- Community activities

Assessment parameters may include:

- Communication skills
- Punctuality
- Ethical behaviour
- Teamwork
- Professional appearance
- Respectful patient interaction
- Patient safety compliance

O. Grievance Redressal and Reporting Mechanism

Institutions should establish mechanisms for:

- Reporting ethical concerns
- Addressing professional misconduct
- Managing patient safety incidents
- Handling harassment or discrimination complaints
- Student counselling and support

Students should be encouraged to report unsafe or unethical practices through appropriate institutional channels.

P. Conclusion

The ethics, professional conduct, and patient safety guidelines described in this annexure are intended to promote ethical, safe, patient-centred, and professionally responsible ophthalmic assistant practice within supervised healthcare systems.

Adherence to these principles is essential for maintaining patient trust, healthcare quality, professional accountability, and safe ophthalmic clinical practice. The Diploma in Ophthalmic Assistant programme therefore emphasizes ethical conduct, professionalism, infection prevention, patient safety, and responsible healthcare behaviour as integral components of competency-based allied healthcare education.



Annexure XII

Biomedical Waste Management and Infection Control

A. Introduction

Biomedical waste management and infection prevention are essential components of safe ophthalmic healthcare practice. Ophthalmic Assistants work within clinical environments that involve direct patient interaction, ophthalmic procedures, exposure to the operating theatre, diagnostic services, sterilisation systems, and the handling of potentially contaminated instruments and materials. Therefore, appropriate understanding and implementation of infection control measures and biomedical waste management practices are critical to ensuring patient, occupational, and public health safety.

This annexure outlines the principles, protocols, safety measures, and recommended practices related to biomedical waste management and infection control applicable to students, interns, faculty members, and institutions conducting the Diploma in Ophthalmic Assistant (D.OA) programme.

The guidelines described herein are intended to promote:

- Safe clinical practices
- Prevention of healthcare-associated infections
- Occupational safety
- Proper biomedical waste segregation and disposal
- Safe handling of ophthalmic instruments and materials
- Operation theatre asepsis
- Environmental protection
- Compliance with national infection control and biomedical waste management regulations

B. Objectives

The biomedical waste management and infection control framework aims to:

- Prevent healthcare-associated infections
- Protect patients, students, faculty, and healthcare workers
- Promote safe clinical and OT practices
- Ensure proper segregation and disposal of biomedical waste
- Strengthen infection prevention awareness
- Promote hand hygiene and PPE compliance
- Ensure sterilisation and disinfection of ophthalmic instruments
- Reduce risk of occupational exposure and needle-stick injuries
- Promote environmental safety and public health responsibility

C. Principles of Infection Control

Infection control in ophthalmic healthcare settings is based upon the following principles:

1. Standard Precautions

All patients shall be treated as potentially infectious, irrespective of diagnosis.

Standard precautions include:

- Hand hygiene
- Use of PPE
- Safe injection practices
- Instrument sterilisation
- Biomedical waste segregation
- Environmental cleaning
- Prevention of sharps injuries

2. Aseptic Technique

Students and professionals shall maintain aseptic precautions during:

- Ophthalmic procedures
- OT assistance
- Dressing procedures
- Diagnostic procedures
- Instrument handling

Maintaining sterile fields and preventing contamination are essential during ophthalmic surgical assistance.

3. Prevention of Cross Infection

Cross-infection may occur through:

- Contaminated instruments
- Improper hand hygiene
- Shared equipment
- Inadequate sterilisation
- Improper waste disposal

Students should therefore strictly follow infection prevention protocols in all clinical areas.

D. Hand Hygiene Guidelines

Hand hygiene is the single most important infection prevention measure in healthcare settings.

Students and professionals shall perform hand hygiene:

- Before and after patient contact
- Before ophthalmic procedures
- After removal of gloves
- After contact with contaminated materials
- Before entering and after leaving OT areas

Recommended Hand Hygiene Methods

Method	Indication
Soap and water hand washing	Visible contamination
Alcohol-based hand rub	Routine hand hygiene
Surgical hand scrub	OT procedures

Steps of Hand Hygiene

Proper hand hygiene should include:

- Wetting hands thoroughly
- Application of soap/hand rub
- Cleaning palms, fingers, interdigital spaces, thumbs, and nails
- Rinsing and drying appropriately

Institutions should display hand hygiene charts in clinical and OT areas.

E. Personal Protective Equipment (PPE)

Students and healthcare workers shall use appropriate PPE according to clinical exposure risk.

Common PPE Used in Ophthalmic Healthcare

PPE Item	Purpose
Gloves	Protection from contamination
Surgical masks	Prevention of droplet spread
Protective eyewear	Splash protection
Gowns/aprons	Barrier protection
Caps and shoe covers	OT asepsis

Guidelines for PPE Usage

Students shall:

- Wear PPE appropriately
- Remove PPE safely
- Dispose of contaminated PPE properly
- Avoid reuse of disposable, prohibited PPE
- Follow institutional PPE protocols

F. Sterilisation and Disinfection

1. Importance

Sterilisation and disinfection are essential for preventing the transmission of infection through ophthalmic instruments and OT materials.

2. Sterilisation Methods

Students should receive exposure to:

- Autoclaving
- Chemical sterilisation
- Instrument disinfection
- Sterile tray preparation
- Storage of sterile materials

3. Common Sterilisation Areas in Ophthalmic Practice

- OT instrument sterilisation
- Dressing trays
- Diagnostic contact devices
- Minor procedure instruments
- Lacrimal syringing instruments

4. Handling of Sterile Materials

Students shall:

- Avoid contamination of sterile trays
- Maintain sterile fields
- Handle sterile instruments carefully
- Follow OT aseptic precautions

G. Biomedical Waste Management

1. Introduction

Biomedical waste includes waste generated during:

- Patient care
- Diagnostic procedures
- OT activities
- Dressing procedures
- Injection administration
- Sterilisation processes

Improper biomedical waste handling may lead to:

- Infection transmission
- Occupational hazards
- Environmental contamination
- Public health risks

2. Segregation of Biomedical Waste

Biomedical waste should be segregated at the point of generation in accordance with applicable biomedical waste management rules.

3. Colour Coding System

Students should be familiar with biomedical waste colour coding systems.

Colour Category	Examples
Yellow	Human anatomical waste, contaminated dressings
Red	Contaminated recyclable waste
White (Translucent)	Sharps and needles
Blue	Glassware and metallic implants

Institutions should ensure that colour-coded waste bins are available in all clinical areas.

4. Sharps Disposal

Sharps include:

- Needles
- Blades
- Glass ampoules
- Sharp metallic objects

Students shall:

- Never recap needles manually
- Dispose of sharps immediately after use
- Use puncture-proof sharps containers
- Report sharps injuries immediately

H. Ophthalmic OT Infection Control

Students posted in operation theatre areas shall:

- Follow OT aseptic discipline
- Wear OT attire properly
- Perform surgical hand scrub where applicable
- Maintain sterile field precautions
- Handle sterile instruments appropriately
- Avoid unnecessary movement within OT
- Follow sterilisation protocols strictly

OT Cleaning and Environmental Hygiene

Operation theatre areas should maintain:

- Regular cleaning schedules
- Surface disinfection
- Instrument sterilization protocols
- Air quality and environmental hygiene standards

I. Instrument Cleaning and Maintenance

Students shall receive orientation regarding:

- Cleaning of ophthalmic instruments
- Prevention of instrument contamination
- Safe storage of instruments
- Handling of diagnostic contact devices

Improper instrument maintenance may compromise patient safety and equipment longevity.

J. Infection Prevention During Diagnostic Procedures

During diagnostic assistance procedures such as:

- Tonometry
- OCT preparation
- Fundus imaging
- Visual field testing
- Slit lamp procedures

students shall:

- Maintain hand hygiene
- Clean patient-contact surfaces
- Follow equipment disinfection protocols
- Use disposable materials appropriately, where indicated

K. Needle-stick Injury and Exposure Management

1. Prevention

Students shall:

- Handle sharps carefully
- Avoid unsafe needle practices
- Dispose of sharps appropriately
- Follow PPE protocols

2. Reporting Exposure

In case of:

- Needle-stick injury
- Blood or body fluid exposure
- OT contamination incident

students should:

- Report immediately to supervisor
- Follow institutional exposure protocols
- Seek medical evaluation where required

L. Environmental Cleaning and Surface Disinfection

Clinical and OT areas should maintain:

- Routine environmental cleaning
- Surface disinfection protocols
- Equipment cleaning schedules
- Safe waste disposal systems

Students should understand the importance of environmental hygiene in infection prevention.

M. Community Ophthalmology Infection Control

During community outreach programmes and eye camps:

- Hand hygiene facilities should be maintained
- Instruments should be disinfected appropriately
- Disposable materials should be used wherever feasible
- Waste disposal systems should be arranged
- Patient safety and hygiene should be prioritised

N. Occupational Safety Measures

Students and healthcare workers should maintain awareness regarding:

- Exposure risks
- Chemical hazards
- Electrical safety
- Fire safety
- Ergonomic safety
- Emergency evacuation protocols

Institutions should conduct periodic safety orientation and mock drills wherever feasible.

O. Documentation and Reporting

Institutions should maintain:

- Infection control records
- Sterilisation logs
- Waste disposal records
- Exposure incident records
- OT cleaning schedules
- Biomedical waste management documentation

Students may be exposed to basic documentation systems related to infection prevention and OT management.

P. Faculty and Institutional Responsibilities

Institutions conducting the programme should:

- Establish infection control policies
- Maintain sterilisation and waste disposal systems
- Provide PPE and safety resources
- Conduct infection control training
- Ensure safe clinical learning environments
- Maintain biomedical waste management compliance

Faculty members shall:

- Supervise students appropriately
- Demonstrate safe clinical practices
- Promote patient safety and infection prevention
- Ensure compliance with institutional protocols

Q. Assessment of Infection Control Competencies

Students may be assessed for:

- Hand hygiene practices
- PPE usage
- Biomedical waste segregation
- OT aseptic techniques
- Instrument sterilisation awareness
- Infection prevention compliance
- Safe sharps disposal

Assessment methods may include:

- OSCE/OSPE stations
- Practical examinations
- Clinical observation
- Competency checklists
- Internship evaluation

R. Suggested Competencies for Students

Upon completion of training, the student should be able to:

- Demonstrate proper hand hygiene
- Use PPE appropriately
- Follow sterilisation protocols
- Segregate biomedical waste correctly
- Handle ophthalmic instruments safely
- Maintain OT asepsis
- Prevent cross-infection
- Follow safe sharps disposal practices
- Maintain patient and occupational safety standards

S. Conclusion

Biomedical waste management and infection prevention are fundamental responsibilities of all healthcare professionals, including OA/VT. The guidelines described in this annexure are intended to promote safe, ethical, patient-centred, and environmentally responsible ophthalmic healthcare practices within clinical, diagnostic, operation theatre, and community healthcare settings.

Strict adherence to infection prevention protocols and biomedical waste management systems is essential for ensuring patient safety, occupational safety, public health protection, and quality ophthalmic healthcare delivery.

Annexure XIII

Semester-wise Recommended and Reference Textbooks

SEMESTER I

Subject Code	Subject Title
D.OA 101	General and Ocular Anatomy Recommended Textbooks 1. Clinical Anatomy of the Eye. Authors: Richard S. Snell, Michael A. Lemp. Publisher: Wiley-Blackwell. Recommended Edition: Latest Edition 2. Textbook of Anatomy and Physiology for Nurses and Allied Health Sciences. Author: A.K. Jain. Publisher: Avichal Publishing Company, New Delhi 3. Human Anatomy and Physiology. Authors: K. Sembulingam, Prema Sembulingam. Publisher: Jaypee Brothers Medical Publishers, New Delhi Reference Books 1. Gray's Anatomy for Students. Authors: Richard Drake, Wayne Vogl, Adam Mitchell. Publisher: Elsevier 2. Clinical Anatomy by Regions. Author: Richard S. Snell. Publisher: Wolters Kluwer. Internet Resources.
D.OA 102	General and Ocular Physiology Recommended Textbooks 1. Essentials of Medical Physiology. Authors: K. Sembulingam, Prema Sembulingam. Publisher: Jaypee Brothers Medical Publishers 2. Adler's Physiology of the Eye. Authors: Leonard A. Levin et al. Publisher: Elsevier 3. Textbook of Physiology. Author: A.K. Jain. Publisher: Avichal Publishing Company Reference Books 1. Guyton and Hall Textbook of Medical Physiology. Authors: John E. Hall, Michael E. Hall. Publisher: Elsevier 2. Ganong's Review of Medical Physiology. Publisher: McGraw Hill
D.OA 103	Physical & Geometrical optics

Subject Code	Subject Title
	Recommended Textbooks 1. Theory and Practice of Optics and Refraction. Author: A.K. Khurana Publisher: Elsevier India. 2. Clinical Optics. Authors: Elkington, Frank, Greaney. Publisher: Wiley-Blackwell 3. Optics for Clinicians. Author: Schwartz. Publisher: McGraw Hill Reference Books 1. Geometrical and Visual Optics. Author: Steven H. Schwartz. Publisher: McGraw Hill 2. Borish's Clinical Refraction. Author: William J. Benjamin. Publisher: Elsevier
D.OA 104	Computer Education and Digital Health Basics Recommended Textbooks 1. Fundamentals of Computers. Author: V. Rajaraman. Publisher: PHI Learning Pvt. Ltd. 2. Computer Fundamentals. Author: P.K. Sinha. Publisher: BPB Publications 3. Introduction to Health Informatics. Author: Ramaiah M. Publisher: Universities Press Reference Books 1. Digital Health. Publisher: WHO Publications.
D.OA 105	Professional Ethics, Infection Control, and Patient Safety Recommended Textbooks 1. Biomedical Waste Management Rules Handbook. Publisher: Government of India. 2. Ethics in Healthcare Practice. Publisher: Jaypee Brothers Medical Publishers 3. Infection Control for Healthcare Professionals. Publisher: CBS Publishers 4. English for Nurses and Allied Health Professionals. Author: Ros Wright. Publisher: Pearson Education

Subject Code	Subject Title
	5. Professional Communication in Healthcare. Author: Ruby Hanson. Publisher: Cengage Learning Reference Books 1. WHO Hand Hygiene Guidelines. Publisher: World Health Organization 2. NABH Infection Control Standards. Publisher: NABH 3. Communication Skills for Health Professionals. Author: Gwen van Servellen. Publisher: Jones & Bartlett Learning
D.OA 106	Clinical Techniques – Lab I Recommended Textbooks 1. The Ophthalmic Assistant. Authors: Harold A. Stein et al. Publisher: Elsevier 2. Practical Ophthalmic Procedures. Publisher: Jaypee Brothers Medical Publishers Reference Books 1. Clinical Procedures in Ophthalmic Practice. Publisher: Lippincott Williams & Wilkins.

SEMESTER II

Subject Code	Subject Title
D.OA 201	Optics of the Eye and Ophthalmic Optics Recommended Textbooks 1. Theory and Practice of Optics and Refraction. Author: A.K. Khurana. Publisher: Elsevier India 2. Clinical Optics. Authors: Elkington, Frank, Greaney. Publisher: Wiley-Blackwell 3. System for Ophthalmic Dispensing. Authors: Brooks and Borish. Publisher: Butterworth-Heinemann 4. Ophthalmic Dispensing. Publisher: CBS Publishers. Reference Books 1. Borish's Clinical Refraction. Publisher: Elsevier. 2. Clinical Refraction. Publisher: Elsevier
D.OA 202	Ocular Diseases Recommended Textbooks 1. Comprehensive Ophthalmology. Author: A.K. Khurana. Publisher: Jaypee Brothers Medical Publishers 2. Parsons' Diseases of the Eye. Authors: Ramanjit Sihota, Radhika Tandon. Publisher: Elsevier India Reference Books 1. Kanski's Clinical Ophthalmology. Publisher: Elsevier
D.OA 203	General & Ocular Biochemistry Recommended Textbooks 1. Textbook of Biochemistry for Medical Students. Authors: D.M. Vasudevan, S. Sreekumari. Publisher: Jaypee Brothers Medical Publishers 2. Essentials of Biochemistry. Author: U. Satyanarayana. Publisher: Elsevier India Reference Books 1. Harper's Illustrated Biochemistry. Publisher: McGraw Hill

Subject Code	Subject Title
D.OA 204	Microbiology, Pathology, and Pharmacology Recommended Textbooks 1. Essentials of Medical Microbiology. Authors: Apurba S. Sastry, Sandhya Bhat. Publisher: Jaypee Brothers Medical Publishers 2. Review of Pharmacology. Author: Gobind Rai Garg. Publisher: CBS Publishers 3. Textbook of Pathology. Author: Harsh Mohan. Publisher: Jaypee Brothers Medical Publishers Reference Books 1. Basic and Clinical Pharmacology. Publisher: McGraw Hill
D.OA 205	Public health and community eye care Recommended Textbooks 1. Community Ophthalmology. Author: A.K. Khurana. Publisher: CBS Publishers 2. Community Eye Health. Author: Hugh Taylor. Publisher: Imperial College Press Reference Books 1. NPCBVI Operational Guidelines. Publisher: Government of India.
D.OA 206	Clinical Techniques Lab – II Recommended Textbooks 1. The Ophthalmic Assistant. Publisher: Elsevier 2. Atlas of Ophthalmic Instruments. Publisher: Jaypee Brothers Medical Publishers
D.OA 207	Clinical postings – I Suggested Resources 1. Hospital SOP Manuals 2. Clinical Posting Handbook 3. Institutional Infection Control Manual 4. Clinical Logbook

SEMESTER III

Subject Code	Subject Title
D.OA 301	Operation Theatre Techniques and Sterilisation Procedures Recommended Textbooks 1. Operation Theatre Techniques and Management. Author: P. Nagarajan. Publisher: Jaypee Brothers Medical Publishers 2. CSSD and Sterilization Manual. Publisher: CBS Publishers Reference Books 1. WHO Surgical Safety Manual. Publisher: WHO
D.OA 302	Emergency Eye Care & First Aid Recommended Textbooks 1. Ocular Emergencies. Publisher: Elsevier. 2. First Aid Manual for Healthcare Professionals. Publisher: St. John Ambulance Association Reference Books 1. Emergency Ophthalmology Handbook. Publisher: Jaypee Brothers Medical Publishers.
D.OA 303	Hospital Inventory and Supplies Recommended Textbooks 1. Materials Management: An Integrated Systems Approach. P. Gopalakrishnan & M. Sundaresan. 3rd Edition. PHI Learning. 2. Training Manual on Eye Care for Medical Officers at Ayushman Bharat – Health and Wellness Centres, MoHFW. Year 2021. 3. Mastering Optical Shop Management: Navigating the Visionary Future of Eyewear Excellence. ASIN: B0CTCXRBM3. By Swapnil Kankute. Reference Books 1. Manual for Planning of Tertiary Eye Care Services. A VISION 2020: The Right to Sight - India Publication. https://vision2020india.org/storage/images/resources/pdf_files/17344_28772_pdf.pdf

Subject Code	Subject Title
	2. VISION CENTRE MANUAL. Vision 2020: The Right to Sight – India. https://vision2020india.org/storage/images/resources/pdf_files/1734434399_pdf.pdf
D.OA 304	Teleophthalmology & Home care Recommended Textbooks 1. Telemedicine Technologies. Publisher: Springer 2. Digital Health and Teleophthalmology. Publisher: Elsevier Reference Books 1. WHO Telemedicine Guidelines. Publisher: WHO
D.OA 305	Clinical postings – II Suggested Resources 1. Clinical Logbook 2. OT Protocol Manual 3. Diagnostic Workflow SOPs
D.OA 306	Operation Theatre Postings – I Suggested Resources 1. OT Sterilization Manual 2. Ophthalmic Surgical Assistance Manual 3. Biomedical Waste Management Guidelines

RECOMMENDED JOURNALS

1. Indian Journal of Ophthalmology. Publisher: All India Ophthalmological Society
2. Delhi Journal of Ophthalmology. Publisher: Delhi Ophthalmological Society
3. Community Eye Health Journal. Publisher: International Centre for Eye Health
4. Ophthalmology. Publisher: American Academy of Ophthalmology
5. Optometry and Vision Science. Publisher: American Academy of Optometry

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3. American Optometric Association. Clinical Practice Guidelines. St. Louis: AOA; Latest Edition.
4. Anne Waugh, Allison Grant. Ross and Wilson Anatomy and Physiology in Health and Illness. 14th ed. London: Elsevier; 2022.
5. APIC. Infection Prevention and Control Guidelines for Healthcare Facilities. Washington DC: Association for Professionals in Infection Control and Epidemiology; Latest Edition.
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7. Basic and Clinical Pharmacology. 15th ed. New York: McGraw Hill; 2021.
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13. Delhi Journal of Ophthalmology. New Delhi: Delhi Ophthalmological Society; Various Issues.
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18. Government of India. National Programme for Control of Blindness and Visual Impairment (NPCBVI) Guidelines. New Delhi: Ministry of Health and Family Welfare; Latest Edition.
19. Government of India. Telemedicine Practice Guidelines. New Delhi: Ministry of Health and Family Welfare; Latest Edition.
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31. National Commission for Allied and Healthcare Professions (NCAHP). Competency-Based Curriculum Framework for Allied and Healthcare Professions. New Delhi: Ministry of Health and Family Welfare; Latest Edition.
32. National Medical Commission. AETCOM Module for Healthcare Professionals. New Delhi: NMC; Latest Edition.
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