

# SUMANDEEP VIDYAPEETH

(Declared as Deemed to be University under Section 3 of the UGC Act 1956)

Accredited by NAAC with a CGPA of 3.53 out of four-point scale at 'A' Grade

Category – I deemed to be university under UGC Act - 2018

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CURRICULUM

## Diploma in OPHTHALMIC ASSISTANT

Attested CTC

*Sharaney*  
15/2/2021

Vice-Chancellor

Sumandeep Vidyapeeth

An Institution Deemed to be University

VIII. Piparia, Taluka: Waghodia.

Dist. Vadodara-391 760. (Gujarat)



*Mandhank*

*Choudhary*



AMENDED UP TO DECEMBER -2020

## INTRODUCTION

### Scope

The quality of paramedical care has improved tremendously in the last few decades due to the advances in technology, thus creating fresh challenges in the field of healthcare. It is now widely recognized that health service delivery is a team effort involving both clinicians and non-clinicians, and is not the sole duty of physicians and nurses. Professionals that can competently handle sophisticated machinery and advanced protocols are now in high demand. In fact, diagnosis is now so dependent on technology, that paramedical and healthcare professionals are vital to successful treatment delivery.

Effective delivery of healthcare services depends largely on the nature of education, training and appropriate orientation towards community health of all categories of health personnel, and their capacity to function as an integrated team, with a range of skills and expertise, play key roles within the National Health Service, working autonomously, in multi-professional teams in various settings. All of them are first-contact practitioners and work across a wide range of locations and sectors within acute, primary and community care.

### Learning goals and objectives for paramedical healthcare professionals

The learning goals and objectives of the undergraduate and graduate education program will be based on the performance expectations. They will be articulated as learning goals (why we teach this) and learning objectives (what the students will learn). Using the framework, students will learn to integrate their knowledge, skills and abilities in a hands-on manner in a professional healthcare setting.

### Program outcomes

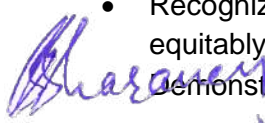
- To carry out all routine diagnostic / therapeutic test on modern hospital laboratory
- To train the students to assist the Eye care practioners
- To acquire knowledge of certain techniques to carry out early detection of Visual defects.
- To train the student in Power checking, Ophthalmic Lens Grinding, Manufacturing Units etc.

### Ethics and accountability

Students will understand core concepts of clinical ethics and law so that they may apply these to their practice as healthcare service providers. Program objectives should enable the students to:

- Describe and apply the basic concepts of clinical ethics to actual cases and situations
- Recognize the need to make health care resources available to patients fairly, equitably and without bias, discrimination or undue influence
- Demonstrate an understanding and application of basic legal concepts to the practice

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- Employ professional accountability for the initiation, maintenance and termination of patient-provider relationships
- Demonstrate respect for each patient's individual rights of autonomy, privacy, and confidentiality

### Commitment to professional excellence

The student will execute professionalism to reflect in his/her thought and action a range of attributes and characteristics that include technical competence, appearance, image, confidence level, empathy, compassion, understanding, patience, manners, verbal and non-verbal communication, an anti-discriminatory and non-judgmental attitude, and appropriate physical contact to ensure safe, effective and expected delivery of healthcare.

### Eligibility criteria: HSC or 12<sup>th</sup> Qualified with Science Stream

**Duration:** 2 years +1 year Internship

### Medium of instruction:

English shall be the medium of instruction for all the subjects of study and for examination of the course.

### Attendance

A candidate has to secure minimum 80% attendance in overall with at least-

1. 75% attendance in theoretical
2. 80% in Skills training (practical) for qualifying to appear for the final examination.

No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition etc.

### Assessment:

Assessments should be completed by the academic staff, based on the compilation of the student's theoretical & clinical performance throughout the training programme. To achieve this, all assessment forms and feedback should be included and evaluated. Student must attain at least 50% marks in each Theory, Internal assessment and Practical independently / separately for each individual subject.

### COURSE OF INSTRUCTION

Course Name	Course Code	Theory (In hrs.) (Class and lab)	Practical (In hrs.) (Clinical)
<b>First Year - Total Hours 700</b>			
Basic medical science- ophthalmology	DOA101	250	100
		<b>Total 250</b>	<b>100</b>
<b>Second Year - Total Hours 1100</b>			
Ophthalmic Equipments and techniques	DOA201	600	200
		<b>Total 600</b>	<b>200</b>

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## SCHEME OF EXAMINATION

Course	Course Code	Assessment			
		Hours	Internal	External	Total
<b>First Year</b>					
Basic medical science-ophthalmology	DOA101	3	100	200	300
<b>Total</b>			<b>100</b>	<b>200</b>	<b>300</b>
<b>Second Year</b>					
Ophthalmic equipments and techniques	DOA201	3	100	200	300
<b>Total</b>			<b>100</b>	<b>200</b>	<b>300</b>

### FIRST YEAR DIPLOMA IN OPHTHALMIC ASSISTANT

#### PAPER-I: BASIC MEDICAL SCIENCE-OPHTHALMOLOGY DOA101 (250 HOURS)

Syllabus Contents:-

Basic science (including human physiology, pharmacy, and microbiology) is in relation to clinical ophthalmology.

Anatomy and Physiology-

- Human anatomy with special reference to special senses.
- Parts of the body
- Organs of special senses
- Orbit and ocular adnexa (lid and lacrimal system)
- Ocular muscles and cranial nerves
- Gross anatomy of coats of eyeball (cornea, sclera, uvea, retina, lens and vitreous)

Physiology of eyeball-

- Physiology of vision including colour vision
- Ocular movements & binocular vision
- Accommodation and convergence
- Formation and circulation of aqueous & lacrimal fluids

Microbiology

- Introduction to the various organisms responsible for ocular diseases (bacteria, virus and fungi)
- Techniques of conjunctival smears, cultures, scrapings and staining (Grams and KOH)
- Infections and its prevention-routes, gross infection and antisepsis and asepsis

**Attested CTC**  
Clinical pathology

- Examination of urine-gross albumin and sugar

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- Preparation and staining of blood slides for DLC and malarial parasites

#### Pharmacy

- Various methods of administration of drugs in ophthalmic diseases
- Preparation and dispensing of various ophthalmic drugs including fluorescence, mercurochrome, sodium sulphacetamide, homatropine, atropine, pilocarpine and antibiotic drops
- Various side reactions of common ophthalmic drug and drug abuses.
- Ocular anaesthetics
- Miotics and mydriatics

#### **PRACTICALS: 100 HOURS**

*Each student shall undergo training in Skill Simulation Laboratory for learning certain basic clinical skills like IV/IM injection, setting IV line, Cardio-pulmonary resuscitation (CPR), and Life support skills in the beginning of second year, for duration of continuous four days. (Board of Studies letter No.:FPMS/SV/BOS-MIN/0006/2016-17, dated 19/04/2017, and vide notification of Board of Management resolution Ref.:No. SVDU/R/2017-18/5056, dated 09/01/2018).*

### **SECOND YEAR DIPLOMA IN OPHTHALMIC ASSISTANT**

#### **OPHTHALMIC EQUIPMENTS AND TECHNIQUES DOA201 (250 HOURS)**

##### I. Vision testing.

- Various components of vision, principles of testing for visual acuity.
- Lecture demonstration of distant vision, near vision and colour vision [Ichihara]

##### 2 Visual fields:

- Lecture and 5 demonstrations
- Examination.

##### 3. Ophthalmic instruments:

- Name, uses and maintenance of surgical instruments.
- Laying of trolley for surgery [CATARACT, glaucoma, style, pterygium, chalazion, entropion, and squint.

**Attested CTC** Maintenance of surgical instruments.

• Ocular surgery, fundamental of asepsis techniques:

- Asepsis, fumigation and sterilization of instruments.

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- Making of swabs sticks, pads and packing of drums and autoclaving.

#### 5. Ophthalmic diagnosis equipment [maintenance]:

- Trial set, slit lamp, focimeter.
- Synoptophore, keratometer, retinoscope and ophthalmoscope.
- Examination.
- Use of lensometer and neutralisation of lenses.
- Transposition of lenses.
- Fitting and check-up of spectacles.
- Maintenance of tonometer.
- Minor surgical procedures:
- Installation of eye drops and subconjunctival injection etc.
- Fomentation.
- Irrigation.
- Epilation.
- Syringing.
- Setting up of iv drip. Ryle's tube and enema.
- EMERGEN CY RESUSCITATION: general and ophthalmic.

### **PRACTICALS: 200HOURS**

#### **PAPER-III: OPTICS AND REFRACTION**

- Syllabus Contents:-
- Physics & optics.
- Law of refraction & reflection spherical & cylindrical surfaces.
- Optical aberrations of ophthalmic glasses.
- Prisms
- Geometrical & physiological optics.
- Optics of human eye and refractive errors.
- Myopia, hypermetropia & its correction.
- Aphakia its correction.
- Astigmatism, presbyopia& its correction.
- Lecture demonstration on measurement of accommodation & convergence.
- Ophthalmic lenses.
- Decentring, bifocals, segment heights & transposition of lenses.
- Contact lenses- uses and abuses.
- Checking of spectacles.

#### **PAPER-IV: COMMON OCCULAR DISEASE AND COMMUNITY**

##### **OPHTHALMOLOGY**

- Common eye diseases.
- Types of conjunctivitis including trachoma.
- Corneal ulcers & opacities.
- Iritis& cataract.
- Aids & lacrimal sac and eye emergencies.

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*(Signature)*  
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- Chemical & radiational injuries including prevention, first aid & treatment.
- Mechanical injuries, prevention first & treatment.
- Glaucoma.
- Recognition & diagnosis.
- Topometry methodology & precautions.
- Role of ophthalmic assistant in early detection and follow up of glaucoma cases.
- Squint.
- Nomenclature, classification & measurement.
- Cover test, Maddox rod, maddox wing & diplopia charting.
- Uses of synoptophore & exercises.
- Amblyopia with special emphasis on prevention.
- Assessment of binocular vision.
- Systemic disorders.
- diabetes & hypertension.
- Nursing care of ophthalmic patients.
- Pre-operative preparation, cutting of lashes, preparation eye and ocular bandaging.
- Bed making and laying trolley for dressing.
- Medical records.
- Diseases index, alphabetic index, and numerical index major & minor surgical records.
- Health education.
- National plan for control of blindness.
- Screening of school children for eye problems.
- Survey methodology.
- Functioning of eye bank( collection, preservation, transportation & publicity)
- Rehabilitation of blind & vocational training for blind.
- Role of ophthalmic assistants in eye camps.
- Examination( final assessment)

## CODE OF PROFESSIONAL CONDUCT

### INTRODUCTION

The Code of Professional Conduct is designed and set out as guidance for the clinical practitioner within the relationship that exists with every patient receiving health care.

Essential to that relationship is the patient's trust in the practitioner. This trust hangs upon the patient's assurance of being the practitioner's first concern during their clinical encounter, and upon the patient's confidence that the care received will be competent, whether in diagnosis, therapy or counseling.

### STANDARD OF PRACTICE AND CARE

Patients are entitled to the highest standard of practice and care. The essential elements of this are professional competence, good relationships with patients and colleagues and observance of professional ethical obligations.

#### In providing care you must therefore:

- Recognize the limits of your professional competence.
- Be willing to consult colleagues
- Keep clear, accurate and contemporaneous patient records which report the relevant

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*Sharan*  
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findings.

- Keep colleagues informed.
- Pay due regard to the efficacy and the prudent use of resources.
- Be competent, truthful, and accurate, when reporting on investigations.
- Be competent when giving or arranging treatment.

### **Patient's rights**

- Listen to patients and respect their views.
- Treat patients politely and considerately.
- Respect patients' privacy and dignity.
- Give information to patients in a way they can understand.
- Respect the right of patients to be fully involved in decisions about their care.
- Respect the right of patients to refuse treatment or to take part in teaching or research, reporting the refusal to the person requesting the procedure.
- Respond to complaints promptly and constructively.
- Ensure that your views about a patient's life style, culture, beliefs, race, color, sex, sexuality, age, social status, or perceived economic worth, do not prejudice the service you give.

### **CONFIDENTIALITY**

Patients have a right to expect that you will not pass on any personal information which you learn in the course of your professional duties, unless they agree.

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