



மனோன்மணியம் சுந்தரனார் பல்கலைக்கழகம்
MANONMANIAM SUNDARANAR UNIVERSITY

**SYLLABUS FOR DIPLOMA IN OPHTHALMIC ASSISTANCE
PROGRAM OFFERED THROUGH DIRECTORATE OF VOCATIONAL EDUCATION
(COMMUNITY COLLEGES AND VOCATIONAL SKILL DEVELOPMENT CENTRES) FROM
2019 - 2020**



கல்விசார் நிலைக்குழுக் கூட்டம்

**MEETING OF THE STANDING COMMITTEE ON
ACADEMIC AFFAIRS HELD ON FRIDAY
THE 28nd JUNE 2019**

DIPLOMA IN OPHTHALMIC ASSISTANCE

கண் பராமரிப்பு உதவியியல் பட்டயம்

SCHEME OF EXAMINATION

| Subject Code | Title Of Course | credit | Hours | Passing Minimum |
|--------------------|---|--------|-------|-----------------|
| Semester I | | | | |
| C19OC11/E19OC01 | Ocular Anatomy and Physiology | 6 | 90 | 40/100 |
| C19OC12/E19OC02 | Ocular Microbiology and Pharmacology | 6 | 90 | 40/100 |
| C19OC13/E19OC03 | Ocular Diseases I | 6 | 90 | 40/100 |
| C19CE10/E19CE10 | Communicative English | 6 | 90 | 40/100 |
| C19OCP1/E19OCP1 | Practical I-Ophthalmic technique | 4 | 120 | 40/100 |
| Semester II | | | | |
| C19OC21/E19OC04 | Ocular Diseases II and Ocular Emergencies | 6 | 90 | 40/100 |
| C19OC22/E19OC05 | Community Ophthalmology and Basic Health Care | 6 | 90 | 40/100 |
| C19LS23/E19LS05 | Life Skill | 6 | 60 | 40/100 |
| C19OCP2/E19OCP2 | Practical II-Basic Tests in Eye Care and Ocular Emergencies | 4 | 120 | 40/100 |
| C19OCPW/E19OCPW | Project and Internship | 10 | 150 | 40/100 |

Eligibility for admission: Pass In 12th Std. Examination Conducted by the Govt. of Tamil Nadu Board of Secondary Education, Government of Tamilnadu (or) Any Other Equivalent Examination

Examination: Passing minimum for each Course is 40%.classification will be done on the basis percentage marks of the total marks obtained in all of the Courses and given as below:

- 40% but less than 50% - Third Class
- 50%but less than 60% - Second Class
- 60% and above - First Class

Theory Paper

Internal Marks-25

External Marks-75

SYLLABUS

SEMESTER I

- Course I : Ocular Anatomy and Physiology
- Course II : Ocular Microbiology and Pharmacology
- Course III : Ocular Diseases I
- Course IV : Communicative English
- Course V : Practical I-Ophthalmic technique

SEMESTER II

- Course VI : Ocular Diseases II and Ocular Emergencies
- Course VII : Community Ophthalmology and Basic Health Care
- Course VIII : Life Skill
- Course IX : Practical II-Basic Tests in Eye Care and Ocular Emergencies
- Course X : Project and Internship

***(Semester Pattern for Community College Only)**

Program Objectives

- Communicate effectively using interpersonal skills.
- Utilize evidence-based interventions to achieve optimal adaptation.
- Safely perform and prioritize appropriate procedures.
- Employ appropriate thinking to safely and effectively provide eye care.

SEMESTER I

Course I

(C19OC11/E19OC01) Ocular Anatomy and Physiology

Objectives

- To have a knowledge of ocular anatomy
- To understand the various structures in the eye
- Common diseases affecting them

Unit I

18 Hrs

General Anatomy, Introduction About Anatomy And Physiology, Types Of Bone And Functions, Muscular System

Unit II

18 Hrs

Respiratory System, Sensory System, Excretory System.

Unit III

18 Hrs

Internal Organs, Brain, Heart,, Lungs, Liver, Stomach, Pancreas, Sleen, Kidney.

Unit IV

18 Hrs

Occular Anatomy

Unit V

18 Hrs

Occular Physiology

Reference books

1. Essentials of Ophthalmology By Dr.Samar Basak 6th Edition
2. Theory &Practice of Optics & Refraction By Dr A.K.Khurana. 4th Edition.
3. Comprehensive Ophthalmology By Dr A K.Khurana 4th Edition.

Course II

(C19OC12/E19OC02)Ocular Microbiology and Pharmacology

Objectives

- To discuss the characteristics of micro organisms including bacterial, viral and fungal infections
- To discuss the measures to control the spread of micro organisms
- To know about ophthalmic medications
- To know the actions and adverse effects of drugs

Unit I

18 Hrs

Basic Microbiology, Bacteria –Classification Of Bacteria Gram Positive And Negative Cocci, Gram Passitive And Negative Bacilli, Viruses, Parasites ,Smear Preparation, Gram Staing Procedure

Unit II

18 Hrs

Sterilization, Disinfection And Anti Sepsis, Dry Heat, Moist Heat, Autoclave, Gas Sterilization, Chemical Sterilization, Important Principles Of Asepsis

Unit III

18 Hrs

Basic Pharmacology, drug delivery system, astringents and decongestants, Antibiotics, antivirals, antifungals, automic drugs, mydriatics and cycloplegics, local anesthetics.

Unit IV

18 Hrs

Ocular Hypertensive Corticosteroids ,Non Steroidal Anti Inflammatory Drugs.

Unit V

Viscoelastic Substances Ocular Reactions to Systemic Medications, Preservatives In Eye Drops.

Reference

- John J. Harding An A Textbook Of Biochemistry Of The Eye 2nd Edition

COURSE III

(C19OC13/E19OC03)Ocular Diseases I

Objectives

- To study and gain knowledge of the various diseases and disorder affecting of the eyes
- To know the various treatment of various ocular diseases

Unit I

18 Hrs

Diseases of the eye lids and conjunctiva and diseases of the lacrimal apparatus
Conjunctiva: Difference types of conjunctivitis –pterygium ,pingaecula ,bitots spots
Lacrimal apparatus-Dacryoadenitis -the dry eye syndrome -watering from the eye -dacrocystitis

Unit II

18 Hrs

Diseases of the cornea and lens - Cornea-inflammation of the cornea -bacterial keratitis-mycotic keratitis-fungal keratitis-viral keratitis-peripheral keratitis-interstitial keratitis-corneal dystrophies-scleritis-episcleritis - lens-cataract-subluxation of the lens-dislocation of the lens-management of cataract-intra ocular lenses

Unit III

18 Hrs

Out patient services-history taking-external examination of the eye-visual acuity-measuring intra ocular pressure-evaluation of the patency of lacrimal drainage apparatus

Unit IV

18 Hrs

Out patient services II-Equipments-snellen vision chart-auto refractor-slit lamp-ophthalmoscope.

Unit V

18 Hrs

lens-cataract-subluxation of the lens-dislocation of the lens-management of cataract-intra ocular lenses.

Reference

- Mary E.Show And Angeshee.,An A Text Book Of Ophthalmic Nursing.,5th Edition.
- AK.Khurana.,An A Text Book Of Theory And Practice.

COURSE IV

(C19CE10/E19CE10)Communicative English

- 1. Basic Grammar:**
 - a. Review of grammar
 - b. Remedial study of grammar
 - c. Simple sentence
 - d. Word passive voice etc.
- 2. Bubbling Vocabulary:**
 - a. Synonyms
 - b. Antonyms
 - c. One – work Institution
- 3. Reading and Understanding English**
 - a. Comprehension passage
 - b. Précis – writing
 - c. Developing a story from hints.
- 4. Writing English**
 - a. Writing Business letters.
 - b. Paragraph writing
 - c. Essay writing
 - d. Dialogue writing
- 5. Speaking English**
 - a. Expressions used under different circumstances
 - b. Phonetics

Reference

1. V.H.Baskaran – “English Made Easy”
2. V.H.Baskaran – “English Composition Made Easy” (Shakespeare Institute of English Studies, Chennai)
3. N.Krishnaswamy – “Teaching English Grammar” (T.R.Publication, Chennai)
4. “Life Skill” – P.Ravi, S.Prabakar and T.Tamzil Chelvam,M.S.University, Tirunelveli.

COURSE V

Practical I

(C19OCP1/E19OCP1)**Ophthalmic technique**

- Assisting in slit lamp examination
- Assisting in fluorescein staining
- Assisting in corneo
- Sclera suture removal
- Eversion of eye lids
- Assisting in foreign body removal
- Irrigation of the eye
- Eye patches and bandages

Semester II

Course VI

(C19OC21/E19OC04)**Ocular disease II and ocular emergencies**

Objectives

- To study and gain knowledge of the various diseases and disorder affecting of the eyes
- To know the various treatment of various ocular diseases

Unit I

18 Hrs

Blindness-categories of visual impairment, Magnitude various diseases causing blindness

Unit II

18 Hrs

Magnitude various diseases causing blindness

Unit III

18 Hrs

Methods of intervention –nutritional blindness-national programme for blindness-vision

Unit IV

18 Hrs

Role of eye banks in blindness prevention.

Unit V

18 Hrs

Ocular emergencies- corneal emergencies-post operative emergencies-endophthalmitis-retinal emergencies-traumatic optic neuropathy-acute congestive glaucoma-immediate treatment measures

Reference Books

1. Essentials of Ophthalmology By Dr.Samar Basak 6th Edition
2. Theory &Practice of Optics & Refraction By Dr A.K.Khurana. 4th Edition.
3. Comprehensive Ophthalmology By Dr A K.Khurana 4th Edition.

Course VII

(C19OC22/E19OC05)Community Ophthalmology and Basic Health Care

Objectives

- To study and gain knowledge of the various diseases and disorder affecting of the eyes in community
- To know the various treatment of various ocular diseases in community

Unit I

18 Hrs

Clinical ophthalmology including refraction Recent advances including investigative therapeutic procedure, community ophthalmology including

Unit II

18 Hrs

Clinical ophthalmology including refraction Recent advances including investigative therapeutic procedure, community ophthalmology including national programme, rehabilitation of blind.

Unit III

18 Hrs

Eye problems in community people, Health education in common eye disorders

Unit IV

18Hrs

BIOCHEMISTRY

Carbohydrate metabolism-Metabolic disorders of lipids-Amino acid-normal and Abnormal Metabolism.

Unit V

18Hrs

Metabolism of cornea-Metabolism of crystalline lens-Biochemical changes of lens leading to cataract-Photo chemistry of vision-Structure and Metabolism of vitreous.

Reference Books

1. Essentials of Ophthalmology By Dr.Samar Basak 6th Edition
- 2.Theory &Practice of Optics & Refraction By Dr A.K.Khurana. 4th Edition.
- 3.Comprehensive Ophthalmology By Dr A K.Khurana 4th Edition.

COURSE VIII

(C19LS23/E19LS05)**Life Skill**

I Life Coping or adjustment

- (a) External and internal influence in one's life
- (b) Process of coping or adjustment
- (c) Coping with physical change and sexuality
- (d) Coping with stress, shyness, fear, anger for life and criticism.

II Attitude

- (a) Attitude
- (b) Self acceptance, self – esteem and self actualization
- (c) Positive thinking

III Problem Solving

- (a) Goal Setting
- (b) Decision Making
- (c) Time Management and stress Management.

IV Computers

- (a) Introduction to Computers
- (b) M.S.Office
- (c) Power Point

V Internet

- (a) Introduction to internet
- (b) E – mail
- (c) Browsing

References

- 1) Life Skill Programme course I & II by Dr. Xavier Alphona MCRDCE Publications. R.K.Mutt Road, Chennai – 28
- 2) ஆளுமை பண்பு வளர்த்தல் மற்றும் தகவல் தொடர்பு by M.Selvaraj Community College, Palayamkottai
- 3) “Life Skill” –P.Ravi, S.Prabahar & T.Tamil Chelvam, M.S. University, Tirunelveli

COURSE IX

(C19OCP2/E19OCP2) Practical II- Basic Tests in Eye Care & Ocular Emergencies

- Measure IOP, lacrimal duct patency, and vital signs
- Examination of the eye ,assess papillary reflex and reflex and record the detail
- Identify the ocular emergencies
- Instil eye drops
- Irrigate the eye
- Bandages tying and untying
- Tono meter cleaning and sterilization
- Handle glucometer and test urine sugar
- Assist in corneal scarping
- Provide counseling and support for the patient

COURSE X

(C19OCPW/E19OCPW) Project Work and Internship

- Slit lamp examination
- Fluoresce in staining
- Sclera suture removal
- Eversion of eye lids
- Foreign body removal
- Irrigation of the eye
- Eye patches and bandages
