Master's Degree
Ophthalmic Nursing

tech global university

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Master's Degree
Ophthalmic Nursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/nursing/master-degree/master-ophthalmic-nursing**

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01

Introduction

The program in Ophthalmic Nursing is aimed at specializing quality nursing personnel to perform high-level ophthalmologic tasks. This program aims to provide these professionals with the skills and abilities to develop their work activity in a more competent manner and with the confidence of working with the necessary knowledge. A multidisciplinary approach based on the experience of different areas of Nursing work in the Ophthalmology Service, which will allow you to grow in your profession with the most effective system in the educational market.

Acquire the necessary skills to work in nursing in the best Ophthalmology Units with a high-intensity Master's Degree"

The work of the nursing professional is developed in multiple and different areas of intervention; from the patient's reception and accompaniment, to the moment of treatment application and follow-up control. The nursing staff must have the capacity of a multifunctional worker.

In the Ophthalmology Service, this is equally essential: the nursing professional requires a solid preparation that qualifies them in the work areas in which they are going to develop their work. This performance is also affected by the constant technical and technological advances in this field, which means that professionals must be attentive to all updates so as not to become outdated at great speed.

However, achieving this update requires a dedication that is not always compatible with real life.

In this Master's Degree, we have managed to reconcile the intensity of a very complete program, which covers all the essential aspects of the specialization of an expert in ophthalmic nursing, with the daily life of any professional, even those in practice.

Through a study approach that takes advantage of the most efficient teaching formulas and the most useful and versatile online systems, this Master's Degree is a highly qualified tool that will take you, step by step, at your own pace but without delay, to the most demanding educational goal.

A luxury program that we put within your reach with the best conditions of the educational market.

This **Master's Degree in Ophthalmic Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Availability of content from any device, fixed or portable, with Internet connection
- Supplementary documentation databases are permanently available, even after the program

With this Master's Degree, you will be able to combine a high intensity update with your professional and personal life, achieving your goals in a simple and real way"

The learning in this Master's Degree is developed through the most performed teaching methods in online teaching to guarantee that your efforts produce the best results possible"

Our teaching staff is made up of professionals from different fields related to this specialty. This way, we ensure that we provide you with up-to-date knowledge, which is what we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but above all, will put the practical knowledge derived from their own experience; one of the differential qualities of this course.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Master's Degree in Ophthalmic Nursing Developed by a multidisciplinary team of experts, the method integrates the latest advances in educational technology. This way, students will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills for your learning.

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system and Learning from an Expert you will be able to acquire the knowledge as if you were facing the scenario you are learning at that moment. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: learning from an expert.

Update your knowledge through the program in Ophthalmic Nursing.

02

Objectives

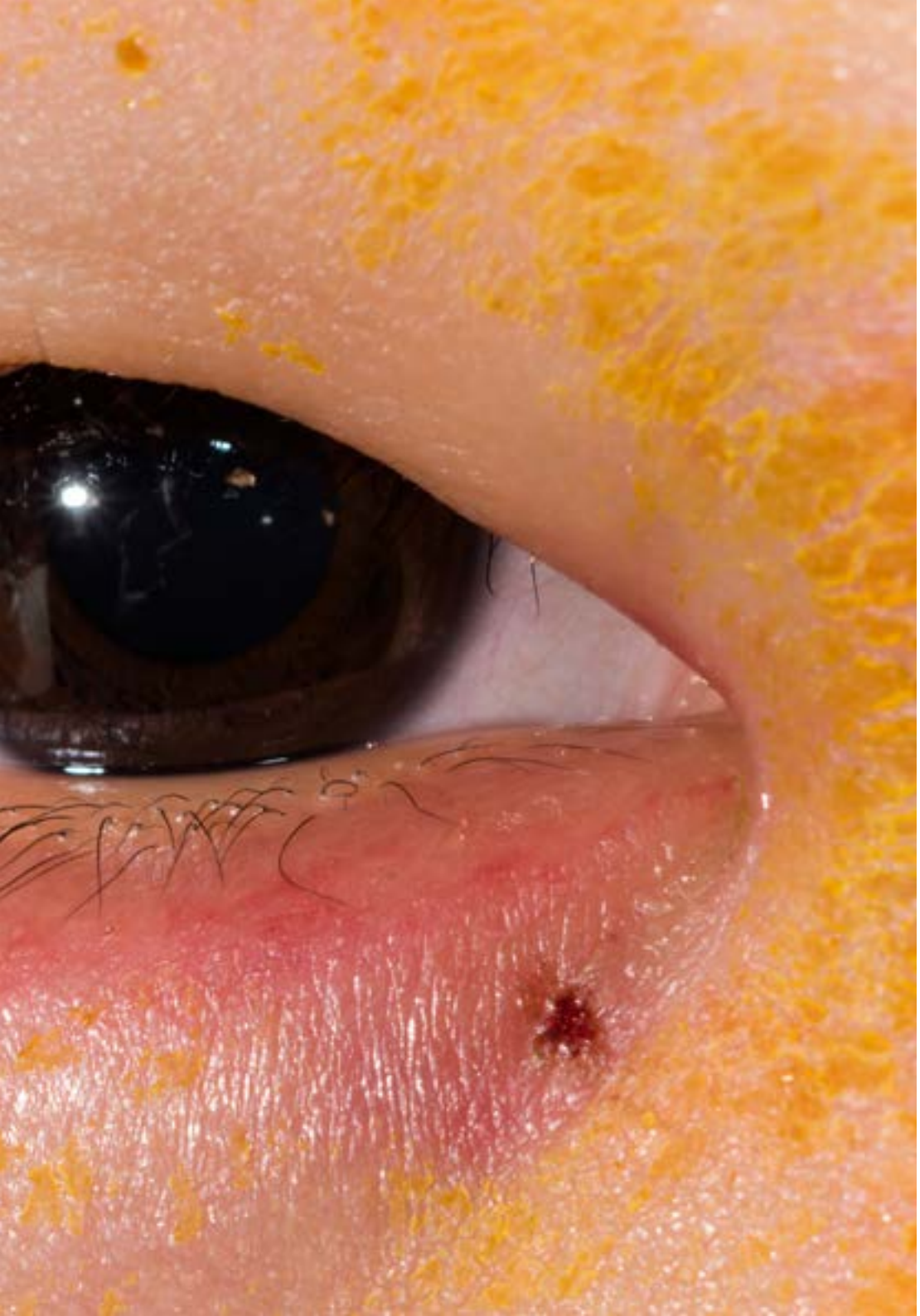
The objective of this program is to provide nursing professionals with the necessary knowledge and skills to perform their activity in the field of Ophthalmology. This Master's Degree will progressively lead the student to acquire the skills that will propel him/her to a much higher professional level.

Become one of the most sought-after professionals of the moment, with this Master's Degree in Ophthalmic Nursing"

General Objectives

- Specialize quality nurses to offer high-level ophthalmic nursing care
- Acquire knowledge and skills that will enable nurses to practice their profession autonomously within the field of ophthalmic nursing

A boost to your CV that will give you the competitiveness of the best prepared professionals in the labor market"



Specific Objectives

Module 1. Ocular Anatomy and Physiology

- Update students' knowledge of the anatomy and physiology of the eyeball in the master's program
- Know the anatomy, histology, physiology, neurophysiology and biochemistry of the visual system and the process of vision
- Provide and expand on previous knowledge of how the organ responsible for vision functions
- Go through each and every one of the elements that make up our eye in an interactive way, by means of images, photographs and videos

Module 2. Principles of Applied Optics

- Explain in a simple way what optics applied to vision consists of so that the student understands the importance of the concepts in daily clinical practice
- Value and incorporate the technological improvements necessary for the correct development of their professional activity
- Demonstrate understanding of the general structure of optometry and its connection with other specific and complementary disciplines
- Demonstrate the ability to participate effectively in unidisciplinary and multidisciplinary work groups in projects related to optometry

Module 3. Ocular Pharmacology

- Interpret pharmacokinetic, pharmacodynamic and toxicological data of drugs used in the prevention and treatment of ocular conditions, diagnostic tests and visual examinations
- Recognize and characterize the different dosage forms and routes of administration of drugs used in the prevention and treatment of ocular conditions, diagnostic tests and visual examinations
- Describe, justify and apply the clinical criteria governing the rational use of drugs used in the prevention and treatment of ocular conditions, diagnostic tests and visual examinations
- Apply the clinical procedures necessary for the early detection of an ocular adverse reaction Establish lines of action in case of an ocular adverse reaction

Module 4. Clinical Ophthalmic Nursing

- Know and handle the different complementary ophthalmological examination techniques: pachymetry, tonometry, biometry-calculation of intraocular lenses, corneal topography and endothelial count, angiofluoresceingraphy, optical coherence tomography, retinography, campimetry and vision test, chromatic-stereopsis
- Acquire knowledge and practice in the management of the patient who comes to the general ophthalmology practice
- Introduction to the management of the ophthalmologic patient in the different units of the specialty and knowledge of the complementary examinations of each one of them
- Identify the role of nursing in eye care within a multidisciplinary team

Module 5. Surgical Ophthalmic Nursing

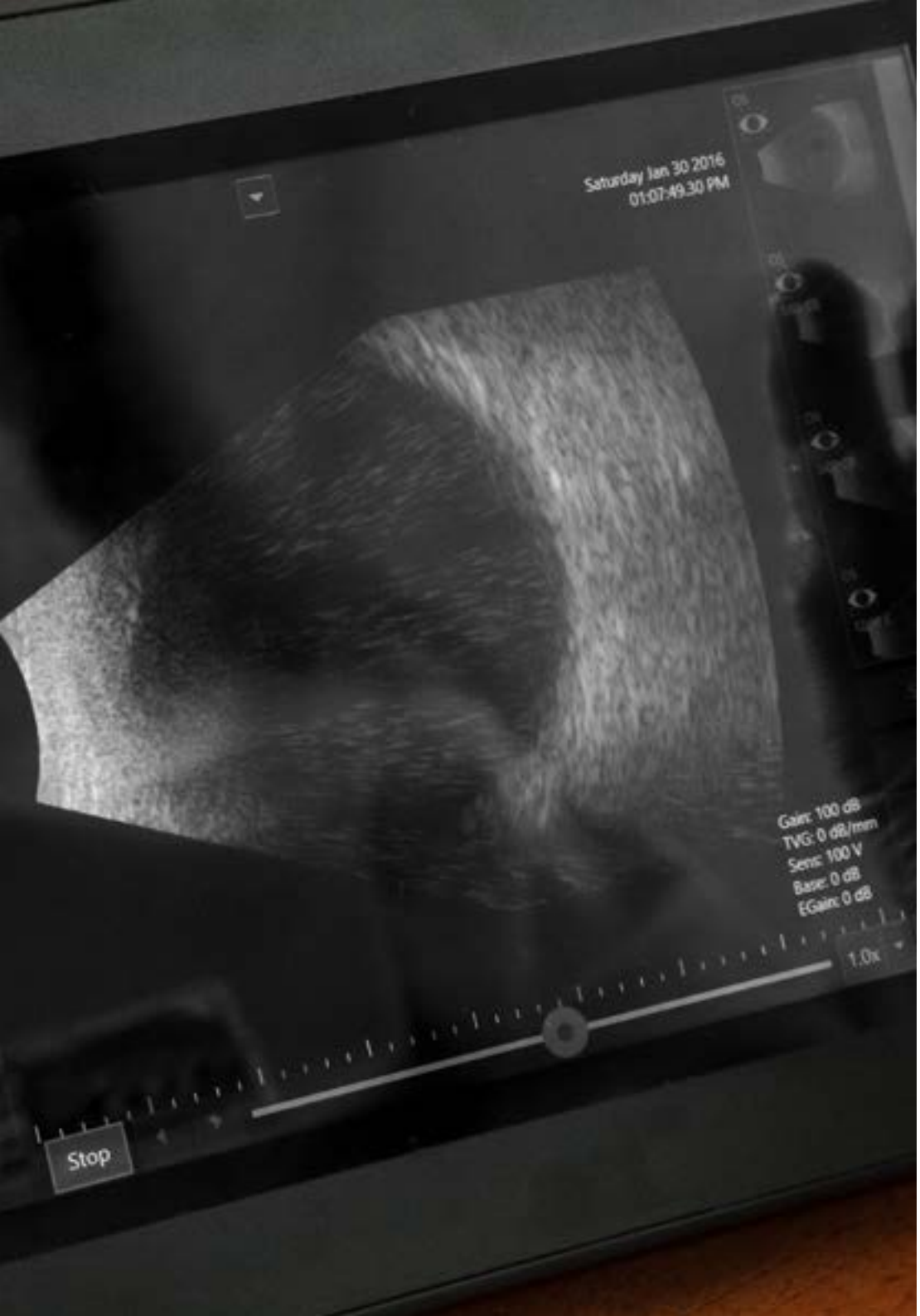
- Ensure continuous specialization to raise the level of knowledge and stimulate the self-development and motivation of nursing professionals in the field of ophthalmology
- Acquire specific knowledge of the nurse's performance in the ophthalmology operating room and the pre- and post-operative care of the ophthalmologic patient
- Learn the different types of anesthesia specific to ophthalmology
- Acquire the necessary knowledge for the handling of specific devices in the different ophthalmologic surgeries

Module 6. Ocular Pathology

- Be able to identify the main problems of ophthalmologic pathology Know the theoretical basis of diagnostic methods in ophthalmologic pathology
- Know the diagnosis and medical-surgical therapeutics of the main diseases of the visual apparatus
- Recognize the ocular manifestations of systemic diseases
- Detect and evaluate the main ophthalmologic disorders in order to refer patients to an ophthalmologist for study and treatment
- Know the epidemiological patterns of the main visual pathologies

Module 7. Ocular Emergencies

- Define the different ocular signs and symptoms in emergencies
- Define emergency ocular traumatological pathology and define protocols of action
- Know the diseases of the conjunctiva, cornea, eyelids, orbit, retina and anterior pole in emergencies
- Learn how to perform a complete ophthalmologic examination, both sensorial and anatomical



Module 8. Ophthalmic Sterilization

- Distinguish between the different cleaning, disinfection and sterilization methods
- Describe the sterilization methods according to the type of material and instruments used
- Identify the European standards applicable to the products manufactured by the sterilization center, intended directly for the patient
- Classify the different types of sterilization indicators and to know their recommendations for each type of material

Module 9. Research Principles for Nursing

- Enhance the quality of research in ophthalmology and vision sciences by nursing professionals
- Manage bibliographic references using applications for their individual and collaborative management, for their correct citation according to Vancouver or other styles
- Develop critical reading skills in quantitative and qualitative research designs, using Checklist and according to itineraries for the communication of research results
- Define the basic structure to be developed in a research protocol

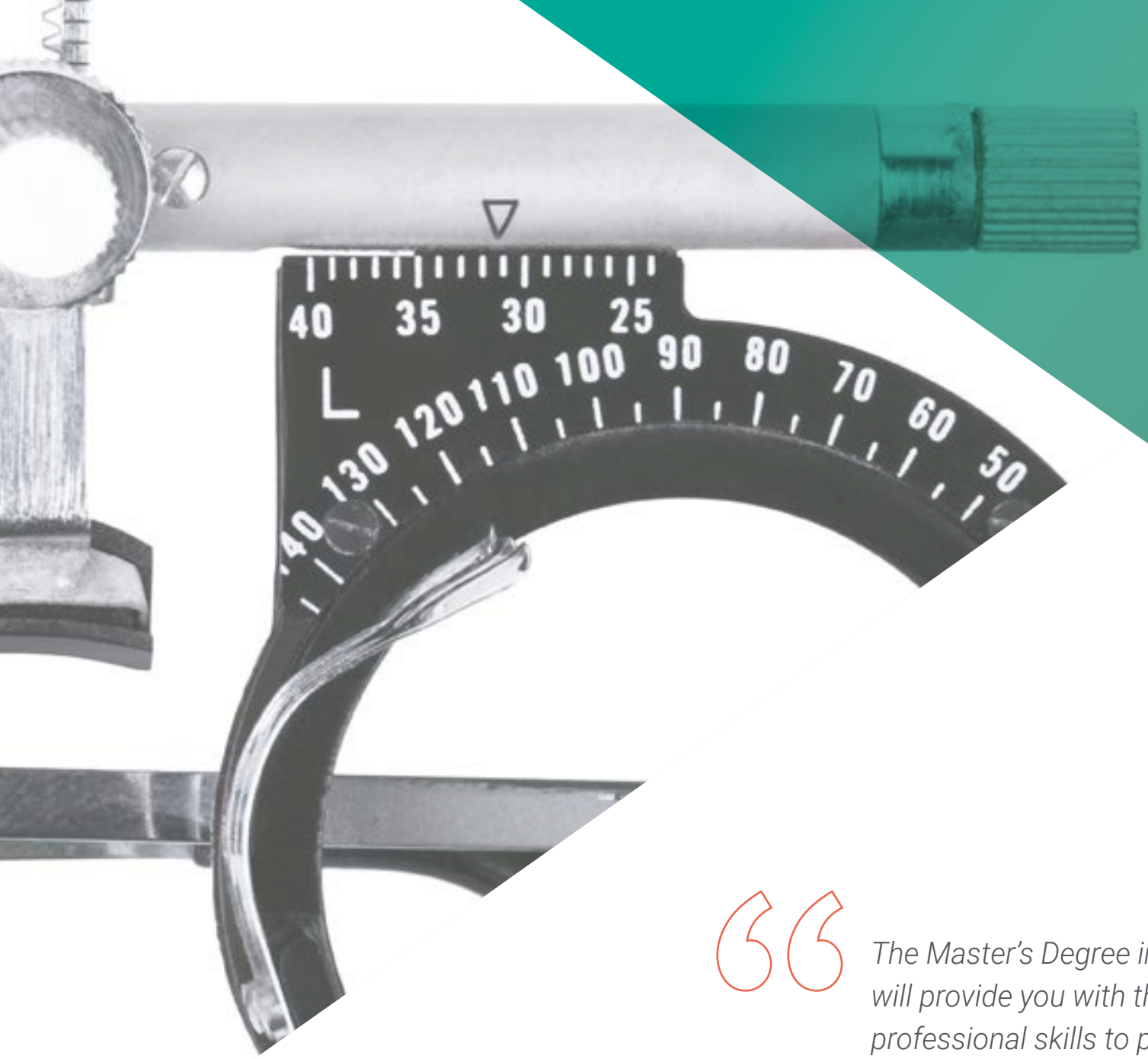
Module 10. Nursing Management and Supervision in Ophthalmic Nursing

- Analyze the specific characteristics of the administration of nursing services in its planning, organization, direction and control aspects
- Assume these characteristics of planning, organization, direction and control and to incorporate them as an important and decisive part of the future nursing work.
- Develop interest in Health Systems Research: quality, effectiveness, costs, distribution of resources for care
- Identify the special characteristics of health services and the need and usefulness of their application in nursing

03

Skills

This Master's Degree in Ophthalmic Nursing has been created as a high qualification tool for the professional of this intervention unit. Its intensive specialization will prepare you to be able to intervene, in an adequate way, in the different ways of working in this field. A compendium of knowledge that will provide you with the appropriate skills in all situations and moments of intervention, from your initial approach and consultation, up to the moment of the patient's discharge.



The Master's Degree in Ophthalmic Nursing will provide you with the essential personal and professional skills to play an appropriate role in any professional situation in this field of intervention"

General Skills

- Develop the role of nursing in eye care within a multidisciplinary team multidisciplinary team
- Develop the basic knowledge of ophthalmology to achieve a systematization of the work through the collection and use of the information obtained in the process of patient care (assessment and identification of problems in those patients likely to present or develop ocular pathology in order to prevent it or if necessary, apply the relevant nursing care)
- Know how to carry out continuous specialization to raise the level of knowledge and stimulate the self-development and motivation of nursing professionals in the field of ophthalmology

Specific Skills

- Proper care of the ophthalmic patient
- Contribute to the compliance of the most appropriate and effective medical treatments for each patient
- Participate with the responsibilities of a specialized nurse in surgical activities
- Handle and care for ophthalmic lenses and tools
- Adequately solve the doubts generated to the patient and/or family members
- Develop general knowledge in research and clinical trials in ophthalmology

A unique specialization program that will allow you to acquire anvanced training in this field"

04

Course Management

Within the concept of total quality of our program, we are proud to put at your disposal a faculty of the highest level, chosen for their proven experience. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed"

Management

Mr. Medina, Francisco Javier

- University Diploma in Nursing from Virgen del Rocio University (2000- 2003)
- Operating Room Manager
- University Diploma in Nursing from the University of Seville, Spain. He has given and received numerous courses and congresses, mainly in ophthalmic surgery
- Member of the Spanish Society of Ophthalmic Nursing

Professors

Dr. Castellano Santana Pedro Raúl

- Doctor Cum Lauden at Jaume I University
- Operating Room, Insular de Gran Canaria University Hospital (2006)
- Neonatology Unit Materno Infantil de Gran Canaria Hospital (2006)
- Radiology Unit at Materno Infantil de Gran Canaria Hospital (2004)
- Official Master's Degree in Nursing Sciences, Jaime I University
- University Diploma in Nursing from the University of Las Palmas de Gran Canaria
- Secretary and founder of the Canarian Ophthalmological Nursing Association
- Current President of the Spanish Association of Neuroscience Nursing (AEEN)

Ms. Escalona Conejo, Loida

- Responsible for the Refractive Unit at Virgen de Luján Clinic
- Degree in Optics and Optometry from the European University of Madrid
- Official Master's Degree in Clinical Optometry and Research at Camilo José Cela University, Madrid
- Diploma in Optics from the Complutense University of Madrid
- PhD from the University of Seville
- Associate Professor. Dept. of Condensed Matter Physics - Degree in Optics and Optometry at the University of Seville

Mr. López-Brea Sica, Israel

- Degree in Nursing: European University of Madrid
- Degree in Law Complutense University of Madrid
- Cardenal Cisneros University College (incomplete)
- Ophthalmology courses and congresses
- Responsible for Surgery, sterilization and maintenance of the Institute of Advanced Ophthalmology (IOA Madrid)

Mr. Lopez Muñoz, Alfredo

- Responsible for the Refractive Unit at Virgen de Luján Clinic
- Degree in Optics and Optometry from the European University of Madrid
- Official Master's Degree in Clinical Optometry and Research at Camilo José Cela University, Madrid
- Diploma in Optics from the Complutense University of Madrid
- PhD from the University of Seville
- Associate Professor. Dept. of Condensed Matter Physics - Degree in Optics and Optometry at the University of Seville

Mr. Molina Lepe, Esteban

- Degree in Medicine and Surgery from the Faculty of Medicine, University of Córdoba
- Specialist in Ophthalmology through MIR at the Puerta De Jerez Hospital of la Frontera
- Ophthalmologist specializing in anterior pole, cataract surgery and refractive surgery at Clínica Virgen de Luján
- Full member of the Spanish Society of Ophthalmology (SEO)

05

Structure and Content

The contents of this Master's Degree have been developed by the different experts of this program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

A complete and well-structured program will take you to the highest standards of quality and success.

A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life"

Module 1. Ocular Anatomy and Physiology

1.1. Eyeball
- 1.1.1. Outer Layer
  - 1.1.1.1. Cornea
  - 1.1.1.2. Sclera
  - 1.1.1.3. Sclerocorneal Limbus
- 1.1.2. Middle or Vascular Layer
  - 1.1.2.1. Iris
  - 1.1.2.2. Ciliary Body
  - 1.1.2.3. Choroid
- 1.1.3. Inner or Neurosensory Layer
  - 1.1.3.1. Retina
  - 1.1.3.2. Vitreous Humor

1.2. Lens
- 1.2.1. Description and Characteristics
- 1.2.2. Morphological
- 1.2.3. Phenomenon of Accommodation

1.3. Conjunctive
- 1.3.1. Description and Characteristics
- 1.3.2. Layers of the Conjunctiva

1.4. Eyelids
- 1.4.1. Description and Characteristics
- 1.4.2. Description of the Layers of the Eyelids

1.5. Lacrimal System
- 1.5.1. Secretory Lacrimal System
- 1.5.2. Excretory Lacrimal System

1.6. Ocular Orbit
- 1.6.1. Description
- 1.6.2. Orbital Openings
- 1.6.3. Structure of the Orbital Bone

1.7. Eye Muscles
- 1.7.1. Description
- 1.7.2. Different Eye Muscles
- 1.7.3. Muscle Action

1.8. Optical Route
- 1.8.1. Optic Nerve
- 1.8.2. Optic Chiasm
- 1.8.3. Optical Ribbons
- 1.8.4. Visual Centers
- 1.8.5. Optical Radiation
- 1.8.6. The Visual Cortex

1.9. Vascularization of the Eyeball
- 1.9.1. Eyeball Arteries
- 1.9.2. Eyeball Veins

1.10. Eyeball Innervation
- 1.10.1. Description
- 1.10.2. Different Ocular Nerves
- 1.10.3. Neuro-Ophthalmology
- 1.10.4. Image Formation

Module 2. Principles of Applied Optics

2.1. Refractive Status of the Human Eye
- 2.1.1. Normal Eyes Description
- 2.1.2. Refractive Defects or Ametropias

2.2. Myopia
- 2.2.1. Description
- 2.2.2. Types of Myopia
- 2.2.3. Causes and Symptoms
- 2.2.4. Correction of Myopia

2.3. Hyperopia
- 2.3.1. Description
- 2.3.2. Types of Hyperopia
- 2.3.3. Causes and Symptoms
- 2.3.4. Correction of Hyperopia

2.4. Astigmatism
- 2.4.1. Description
- 2.4.2. Types of Astigmatism
- 2.4.3. Causes and Symptoms
- 2.4.4. Correction of Astigmatism

2.5. Anisometropia
- 2.5.1. Concept
- 2.5.2. Classification
- 2.5.3. Treatment
- 2.5.4. Aniseikonia

2.6. Presbyopia and Accommodation
- 2.6.1. Concept
- 2.6.2. Causes and Symptoms
- 2.6.3. Anatomy of the Accommodative System
- 2.6.4. Mechanism of Accommodation

2.7. Binocular Vision
- 2.7.1. Concept
- 2.7.2. Stages of Development
- 2.7.3. Determination of Stereoscopic Visual Acuity
  - 2.7.3.1. Types of Coincidence
  - 2.7.3.2. Lang Test
  - 2.7.3.3. Titmus Test
  - 2.7.3.4. TNO Test
  - 2.7.3.5. Frisby Test
- 2.7.4. Amblyopia
  - 2.7.4.1. Concept
  - 2.7.4.2. Classification of Amblyopia
- 2.7.5. Strabismus
  - 2.7.5.1. Concept
  - 2.7.5.2. Classification
  - 2.7.5.3. Motor Adaptation to Strabismus

2.8. Chromatic Vision
- 2.8.1. Concept
- 2.8.2. Types of Anomalies
- 2.8.3. Anomaly Detection Systems

2.9. Measurement of Ocular Refraction
- 2.9.1. Concept
- 2.9.2. Types of Measurement
  - 2.9.2.1. Objective Refraction
  - 2.9.2.2. Retinoscopy
  - 2.9.2.3. Autorefractometry
  - 2.9.2.4. Keratometry

2.10. Types of Ophthalmic Lenses
- 2.10.1. Optical Lens Concept
- 2.10.2. Types of Optical Lenses
  - 2.10.2.1. Spherical Lenses
  - 2.10.2.2. Astigmatic Lenses
  - 2.10.2.3. Prismatic Lenses
  - 2.10.2.4. Multifocal Lenses

Module 3. Ocular Pharmacology

3.1. Principles of Pharmacology
- 3.1.1. Absorption, Distribution, Biotransformation and Elimination of Drugs
- 3.1.2. Mechanisms of Action for Drugs

3.2. Pharmacological Aspects in Ophthalmology
- 3.2.1. Bioavailability
- 3.2.2. Ophthalmological Physiological Factors
- 3.2.3. Types of Ophthalmic Pharmacological Formulations
- 3.2.4. Ophthalmic Drug Administration Procedure

3.3. Ophthalmic Drugs
- 3.3.1. Anesthetics
  - 3.3.3.1. Definition
  - 3.3.3.2 Types of Anesthetics
- 3.3.2. Mydriatics and Cycloplegics
  - 3.3.2.1. Definition
  - 3.3.2.2. Types and Action
- 3.3.3. Antibiotics
  - 3.3.3.1. Definition
  - 3.3.3.2. Most Commonly Used Types of Antibiotics
- 3.3.4. Antivirals
  - 3.3.4.1. Definition
  - 3.3.4.2. Types of Ophthalmic Antivirals
- 3.3.5. Antifungal Drugs
  - 3.3.5.1. Definition
  - 3.3.5.2. Types of Antifungals
  - 3.3.5.3.3. Routes of Administration and Doses

3.3.6. Antiparasitics II
3.3.6.1. Definition
3.3.6.2. Therapeutic Guide
3.3.7. Ocular Anti-Inflammatory Drugs
3.3.7.1. Definition
3.3.7.2. Types of Anesthetics
3.3.8. Immunotherapy
3.3.8.1. Definition
3.3.8.2. Types of Drugs
3.3.9. Ocular Hypotensive Drugs
3.3.9.1. Definition
3.3.9.2. Types of Hypotensive Drugs
3.3.10. Antiangiogenics
3.3.10.1. Definition
3.3.10.2. Types of Drugs
3.3.10.3. Ocular and Systemic Adverse Effects
3.3.11. Tears and Moisturizers
3.3.11.1. Definition
3.3.11.2. Types of Tears
3.3.12. Botulinum Toxin
3.3.12.1. Definition
3.3.12.2. Types of Drugs

3.4. Biological and Diagnostic Dyes
3.4.1. Definition
3.4.2. Classification

3.5. Viscoelastic Agents
3.5.1. Definition
3.5.2. Classification
3.5.3. Indications and Clinical Applications
3.5.4. Adverse Effects

3.6. Solutions for Intraocular Irrigation
  3.6.1. Definition
  3.6.2. Types of Solutions
3.7. Vitreous Substitutes
  3.7.1. Definition
  3.7.2. Types of Vitreous Substitutes
  3.7.3. Features and Clinical Applications
3.8. Ophthalmic Adhesives
  3.8.1. Definition
  3.8.2. Types of Adhesives
  3.8.3. Clinical Applications
3.9. Adverse Ocular Reactions to Systemic Drugs
  3.9.1. Definition
  3.9.2. Adverse Reaction
  3.9.3. Adverse Ocular Reactions to Systemic Drugs
3.10. Pharmacology Applications to Nursing Practice
  3.10.1 Problems Resulting from Pharmacologic Therapy
  3.10.2. Nurse Prescription

Module 4. Clinical Ophthalmic Nursing

4.1. Introduction to Clinical Nursing
  4.1.1. Ocular Medical History
  4.1.2. Medical History
  4.1.3. Informed consent
4.2. Visual Acuity
  4.2.1. Visual Acuity Exploration
  4.2.2. Visual Acuity Measurement Systems
4.3. Refractive Power Measurement Systems
  4.3.1. Use of the Autorefractometer
4.4. Exploration of the Lacrimal Duct
  4.4.1. Definition
  4.4.2. Tearing and Epiphora
  4.4.3. Types of Obstructions
4.5. Performance of Ocular Biometry
  4.5.1. Contact technique
  4.5.2. Optical Biometrics
  4.5.3. Introduction to Intraocular Lens Calculation
4.6. Performing Various Ophthalmic Examinations
  4.6.1. Performance of Corneal Topography
  4.6.2. Performing Angiography
  4.6.3. Visual Field Examination
  4.6.4. Intraocular Pressure Measurement
    4.6.4.1. Contact Tonometers
    4.6.4.2. Non-Contact Tonometers
  4.6.5. Performance of Confocal Specular Microscopy
  4.6.6. Use of the Frontophocometer
4.7. Performing Optical Coherence Tomography
  4.7.1. Definition
  4.7.2. Test Execution
4.8. Slitlamp Handling
  4.8.1. Definition
  4.8.2. Slitlamp Use
4.9. Ocular Electrophysiology
  4.9.1. Electroretinogram
  4.9.2. Electrooculogram
  4.9.3. Visual Evoked Potentials
4.10. Ophthalmology Nurse Consultation
  4.10.1. Nursing Care for Patients with Visual Problems Related to Diabetes Mellitus
  4.10.2. Nursing Care for Patients with Low Vision

Module 5. Surgical Ophthalmic Nursing

5.1. Definition Perioperative Surgical Process
- 5.1.1. Pre-Surgery Surgical Process
- 5.1.2. Intraoperative Surgical Process
- 5.1.3. Post-Surgery Surgical Process

5.2. Ophthalmic Surgical Equipment
- 5.2.1. Description of Equipment
- 5.2.2. Explanation of the Use of Equipment
- 5.2.3. Basic Maintenance of the Equipment

5.3. Ophthalmic Anesthesia
- 5.3.1. Types of Anesthesia
- 5.3.2. Ophthalmic Anesthesia
- 5.3.3. Ophthalmic Anesthesia Consumables

5.4. Ophthalmic Surgery Eyelids, Conjunctiva, Orbit
- 5.4.1. Definition and Types of Eyelid, Conjunctiva, Orbit Surgery
- 5.4.2. Types of Anesthesia
- 5.4.3. List of Surgical Equipment
- 5.4.4. List of Surgical Consumables
- 5.4.5. List of Surgical Tools
- 5.4.6. Surgical Instrumentation Protocol

5.5. Ophthalmic Surgery Cataracts
- 5.5.1. Definition and Types of Cataract Surgery
- 5.5.2. Types of Anesthesia
- 5.5.3. List of Surgical Equipment
- 5.5.4. List of Surgical Consumables
- 5.5.5. List of Surgical Tools
- 5.5.6. Surgical Instrumentation Protocol

5.6. Ophthalmic Surgery Glaucoma
- 5.6.1. Definition and Types of Glaucoma Surgery
- 5.6.2. Types of Anesthesia
- 5.6.3. List of Surgical Equipment
- 5.6.4. List of Surgical Consumables
- 5.6.5. List of Surgical Tools
- 5.6.6. Surgical Instrumentation Protocol

5.7. Ophthalmic Surgery Retina
- 5.7.1. Definition and Types of Retina Surgery
- 5.7.2. Types of Anesthesia
- 5.7.3. List of Surgical Equipment
- 5.7.4. List of Surgical Consumables
- 5.7.5. List of Surgical Tools
- 5.7.6. Surgical Instrumentation Protocol

5.8. Ophthalmic Corneal Surgery
- 5.8.1. Definition and Types of Corneal Surgery
- 5.8.2. Types of Anesthesia
- 5.8.3. List of Surgical Equipment
- 5.8.4. List of Surgical Consumables
- 5.8.5. List of Surgical Tools
- 5.8.6. Surgical Instrumentation Protocol

5.9. Ophthalmic Surgery Refractive Surgery
- 5.9.1. Definition and Types of Refractive Surgery
- 5.9.2. Types of Anesthesia
- 5.9.3. List of Surgical Equipment
- 5.9.4. List of Surgical Consumables
- 5.9.5. List of Surgical Tools
- 5.9.6. Surgical Instrumentation Protocol

Module 6. Ocular Pathology

6.1. Lens. Cataracts
- 6.1.1. Definition
- 6.1.2. Types of Cataracts
- 6.1.3. Treatment

6.2. Macular and Retinal Pathology
- 6.2.1. Definition of Macular and Retinal Pathology
- 6.2.2. Types of Macular and Retinal Pathology
- 6.2.3. Treatment

6.3. Glaucoma
- 6.3.1. Definition
- 6.3.2. Types of Glaucoma
- 6.3.3. Treatment

6.4. Strabismus
- 6.4.1. Introduction
- 6.4.2. Types of Strabismus
- 6.4.3. Treatment

6.5. Eyelids and Eyelashes
- 6.5.1. Introduction
- 6.5.2. Types of Eyelid Pathologies
- 6.5.3. Treatment

6.6. Conjunctiva and Sclera
- 6.6.1. Introduction
- 6.6.2. Types of Conjunctivitis
- 6.6.3. Episcleritis Scleritis
- 6.6.4. Treatment

6.7. Orbit
- 6.7.1. Introduction
- 6.7.2. Types of Diseases

6.8. Uveitis
- 6.8.1. Introduction
- 6.8.2. Types of Uveitis
- 6.8.3. Treatment

6.9. Lacrimal Duct
- 6.9.1. Introduction
- 6.9.2. Types of Obstructions
- 6.9.3. Treatment

6.10. Cornea
- 6.10.1. Introduction
- 6.10.2. Types of Corneal Diseases
  - 6.10.2.1. Keratitis
  - 6.10.2.2. Ectasias
  - 6.10.2.3. Dystrophies
- 6.10.3. Treatment

Module 7. Ocular Emergencies

7.1. Ocular Burns
- 7.1.1. Introduction
- 7.1.2. Types of Burns
  - 7.1.2.1. Chemical
  - 7.1.2.2. Due to Radiation
  - 7.1.2.3. Thermal
- 7.1.3. Complications
- 7.1.4. Treatment

7.2. Endophthalmitis
- 7.2.1. Definition and Types
- 7.2.2. Risk Factors
- 7.2.3. Signs and Symptoms
- 7.2.4. Treatment

7.3. Ocular Trauma
- 7.3.1. Definition
- 7.3.2. Types of Trauma
- 7.3.3. Treatment

7.4. Central Retinal Artery Obstruction
- 7.4.1. Definition
- 7.4.2. Signs and Symptoms
- 7.4.3. Treatment

7.5. Acute Glaucoma
- 7.5.1. Definition
- 7.5.2. Signs and Symptoms
- 7.5.3. Treatment

7.6. Complications of Contact Lens Misuse
- 7.6.1. Definition
- 7.6.2. Keratitis Definition. Types of Keratitis
- 7.6.3. Giant Papillary Conjunctivitis
- 7.6.4. Treatment

7.7. Pink Eye. Conjunctivitis, Corneal Erosions Foreign Bodies
- 7.7.1. Definition
- 7.7.2. Signs and Symptoms
- 7.7.3. Treatment

7.8. Guide to Ocular Sampling
- 7.8.1. Definition
- 7.8.2. Sample Collection
  - 7.8.2.1. Conjunctival Exudate
  - 7.8.2.2. Corneal Scrapings
  - 7.8.2.3. Contact Lenses
  - 7.8.2.4. Surgical Samples
- 7.8.3. Required Equipment and Technique

7.9. Preparation for Intraocular Drug Injections
- 7.9.1. Definition
- 7.9.2. Types of Drugs Used
- 7.9.3. Procedure

7.10. Complications of Ocular Surgery
- 7.10.1. Complications of Cataract Surgery
- 7.10.2. Complications of Retina Surgery
- 7.10.3. Complications of Corneal Surgery
- 7.10.4. Complications of Glaucoma Surgery
- 7.10.5. Complications of Refractive Surgery

Module 8. Ophthalmic Sterilization

8.1. General Information on the Cleaning, Disinfection and Sterilization Process
- 8.1.1. Cleaning of Surgical Material and Instruments
- 8.1.2. Receiving and Washing of the Equipment
- 8.1.3. Classification of Materials Subjected to Sterilization Processes
- 8.1.4. Packaging Equipment Preparation

8.2. Sterilization Controls
- 8.2.1. Definition
- 8.2.2. Physical Controls
- 8.2.3. Chemical Indicators
- 8.2.4. Equipment Control
- 8.2.5. Biological Indicators

8.3. Choosing the Sterilization Procedure
- 8.3.1. Definition
- 8.3.2. Types of Sterilization
  - 8.3.2.1. Heat Sterilization
  - 8.3.2.2. Gas Sterilization
  - 8.3.2.3. Liquid Sterilization

8.4. Traceability of the Sterilization Process
- 8.4.1. Definition
- 8.4.2. Traceability of the Process

8.5. Storage of Sterile Material and Distribution of Sterile Equipment
- 8.5.1. Definition
- 8.5.2. Manipulation
- 8.5.3. Transport
- 8.5.4. Storage

8.6. Single-Use Equipment Resuing the Product
- 8.6.1. Definition
- 8.6.2. Advantages of Use
- 8.6.3. Risks of Reuse of Single-Use Medical Equipment

8.7. Cleaning and Disinfection in Ophthalmology
- 8.7.1. Definition
- 8.7.2. Features
- 8.7.3. Procedures
- 8.7.4. Decontamination of Material Possibly Contaminated with Prions
- 8.7.5. Toxic Anterior Segment Syndrome

8.8. Sterilization in Ophthalmology Practices
- 8.8.1. Definition
- 8.8.2. Features
- 8.8.3. Procedures

8.9. Sterilization in the Ophthalmic Surgical Area
- 8.9.1. Definition
- 8.9.2. Features
- 8.9.3. Procedures

Module 9. Research Principles for Nursing

9.1. The Research Process and Nursing Research
- 9.1.1. Introduction
- 9.1.2. Nursing Research
- 9.1.3. Sources of Knowledge
- 9.1.4. Research Paradigms
- 9.1.5. Characteristics of Quantitative and Qualitative Research

9.2. Objectives and Stages of Research in Nursing
- 9.2.1. Definition
- 9.2.2. Stages in the Research Process

9.3. Information Search
- 9.3.1. Introduction
- 9.3.2. Objectives of the Bibliographic Search
- 9.3.3. Classification of Information Sources
- 9.3.4. Methods for Performing a Bibliographic Search
- 9.3.5. Search Strategy
- 9.3.6. Management of Bibliographic References
- 9.3.7. Research Bases in Health Sciences

9.4. Quantitative Research
- 9.4.1. Definition
- 9.4.2. Objectives
- 9.4.3. Phases of Quantitative Research
- 9.4.4. Types of Research

9.5. Qualitative Research
- 9.5.1. Definition
- 9.5.2. Objectives
- 9.5.3. Types of Research
- 9.5.4. The Interview

9.6. Nursing Research: Evidence-Based Nursing (EBN)
- 9.6.1. Definition
- 9.6.2. Stages of EBN

9.7. Dissemination of Research
- 9.7.1. Definition
- 9.7.2. Types of Diffusion
- 9.7.3. Publication and Citation Standards
- 9.7.4. Impact Factor

9.8. Writing a Research Project
- 9.8.1. Definition
- 9.8.2. Description and Analysis of Project Elements
- 9.8.3. Methodology

9.9. Ophthalmic Nursing Research
- 9.9.1. Definition
- 9.9.2. Impact of Ophthalmic Nursing Research

9.10. International Recommendations from Medical Journal Editors
- 9.10.1. Definition
- 9.10.2. Features

Module 10. Nursing Management and Supervision in Ophthalmic Nursing

10.1. Care Management
- 10.1.1. Care Management as Clinical Management
- 10.1.2. Nursing Division Management Model
- 10.1.3. Strategic Lines in Care Management
- 10.1.4. Nursing Product
- 10.1.5. Portfolio of services
- 10.1.6. Care Plans

10.2. Human Resource Management
- 10.2.1. Leadership and Management
- 10.2.2. Motivation at Work
- 10.2.3. Negotiation
- 10.2.4. Decision-Making Tools
- 10.2.5. Task Delegation
- 10.2.6. Teamwork
- 10.2.7. Job Analysis and Description
- 10.2.8. Estimated Payroll Requirements and Weight Endowment Requirements
- 10.2.9. Levels of Dependency
- 10.2.10. Recruitment of Personnel
- 10.2.11. Recruitment and Reception of Personnel

10.3. Management of Material Resources
- 10.3.1. Material Resources Units
- 10.3.2. Classification of Logistic Activities
- 10.3.3. Determination of Need and Consumption Agreements
- 10.3.4. Management of Clinical Equipment
- 10.3.5. Supplier Selection
- 10.3.6. Order Issuance and Tracking
- 10.3.7. Inventory Management
- 10.3.8. Stock Control

10.4. Quality Management
- 10.4.1. Concept of Quality of Care
- 10.4.2. Quality Evolution and Improvement Tool
- 10.4.3. Structure, Process and Result
- 10.4.4. The EFQM Total Quality Model

10.5. The ISO 9001 Standard in Ophthalmology Units
- 10.5.1. Definition
- 10.5.2. Identifying Processes
- 10.5.3. Benefits

10.6. Joint International Commission Hospital Accreditation
- 10.6.1. Definition
- 10.6.2. Standards

10.7. Management of Nursing Services
- 10.7.1. Definition
- 10.7.2. Management of the Outpatient Area
- 10.7.3. Management of the Hospitalization Area

10.8. Management of Ophthalmic Surgical Units
- 10.8.1. Definition
- 10.8.2. Description of Surgical Unit
- 10.8.3. Surgical Organization
- 10.8.4. Organization of the Work Team
- 10.8.5 . Human Resources.

10.9. Management of the Ophthalmology Practice
- 10.9.1. Definition
- 10.9.2. Types of Practices
- 10.9.3. Organization of the Work Team
- 10.9.4. Human Resources

10.10. Social Networks and Health
- 10.10.1. Definition
- 10.10.2. Most Used Social Networks
- 10.10.3. Use and Utilities
- 10.10.4. Quality and Social Networks

It has a syllabus that meets the requirements to specialize in Ophthalmic Nursing"

06

Methodology

This academic program offers students a different way of learnin g. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

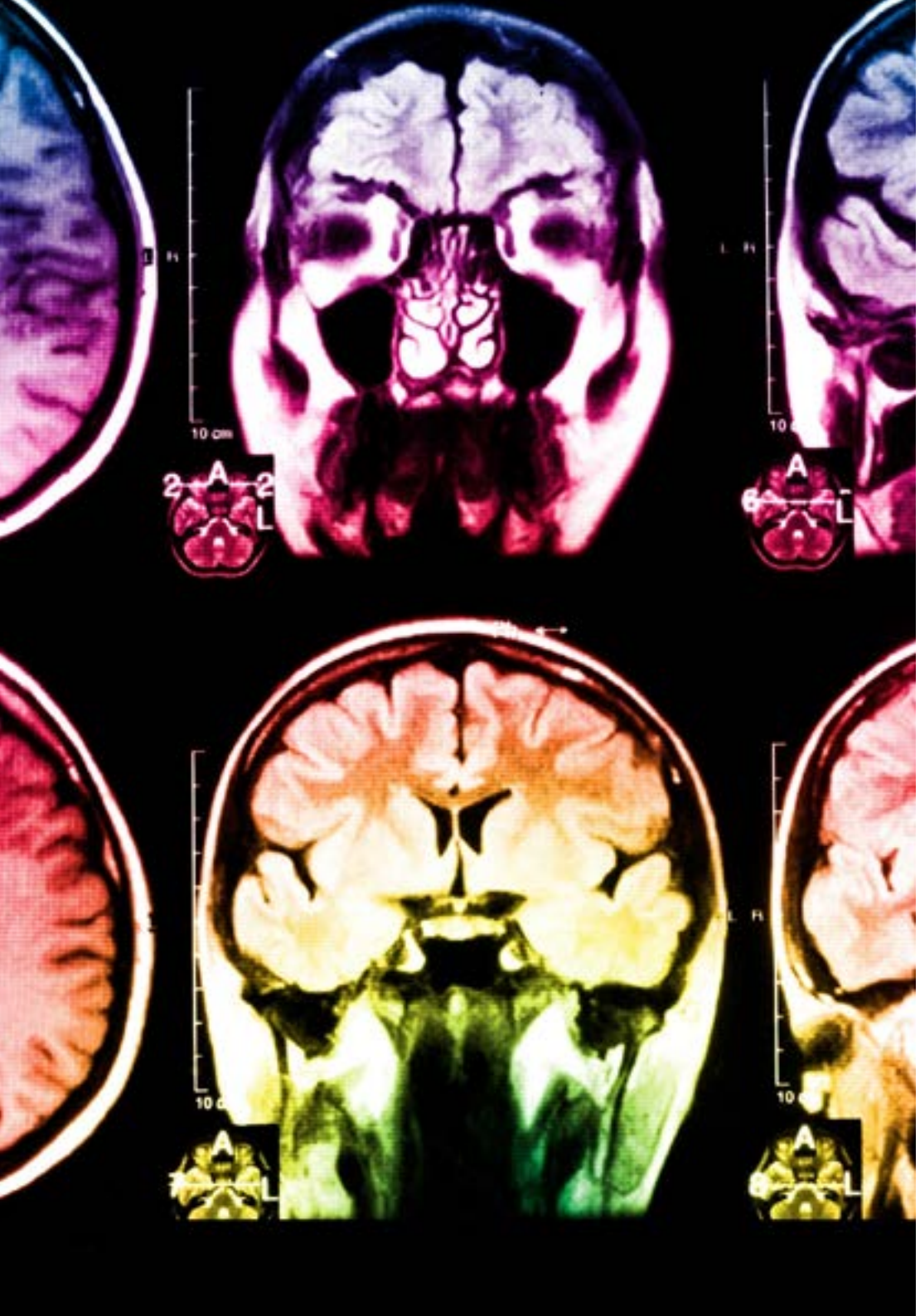
1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.

The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.

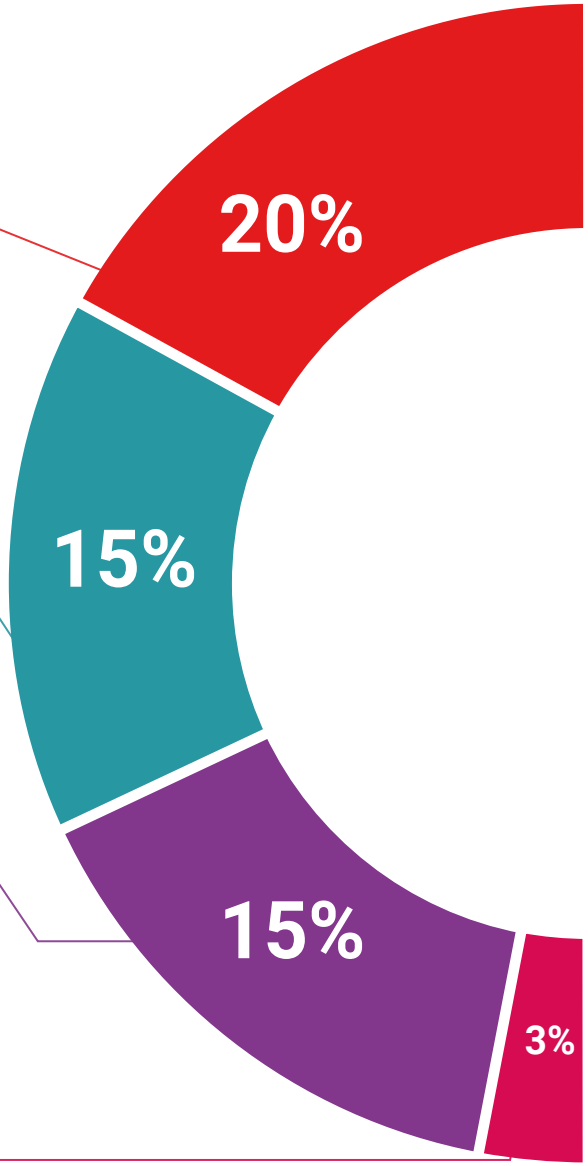
Interactive Summaries

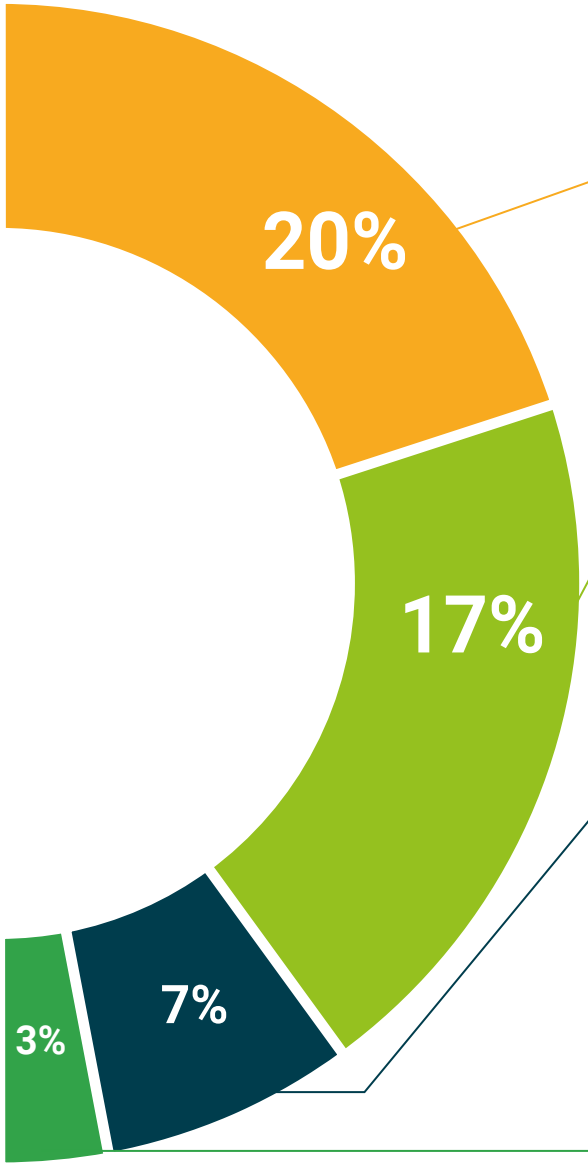
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

07

Certificate

The Master's Degree in Ophthalmic Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Master's Degree issued by TECH Global University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

This private qualification will allow you to obtain a **Master's Degree diploma in Ophthalmic Nursing** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Ophthalmic Nursing**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Master's Degree diploma in Ophthalmic Nursing

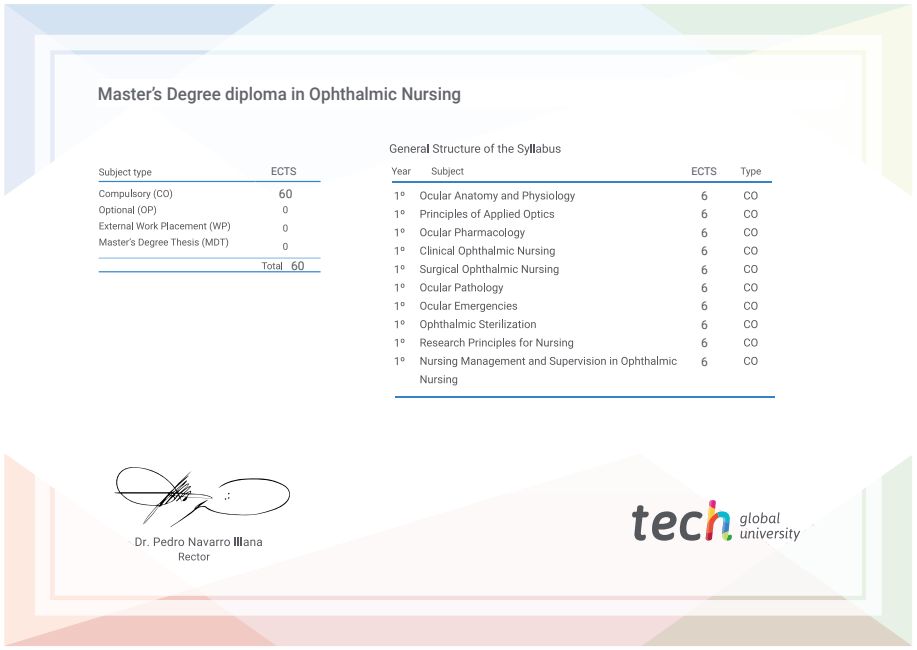
This is a private qualification of 1,800 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates


Master's Degree diploma in Ophthalmic Nursing

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
Total	60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	Ocular Anatomy and Physiology	6	CO
1º	Principles of Applied Optics	6	CO
1º	Ocular Pharmacology	6	CO
1º	Clinical Ophthalmic Nursing	6	CO
1º	Surgical Ophthalmic Nursing	6	CO
1º	Ocular Pathology	6	CO
1º	Ocular Emergencies	6	CO
1º	Ophthalmic Sterilization	6	CO
1º	Research Principles for Nursing	6	CO
1º	Nursing Management and Supervision in Ophthalmic Nursing	6	CO

Dr. Pedro Navarro Illana
Rector

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*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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Master's Degree
Ophthalmic Nursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Master's Degree
Ophthalmic Nursing

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