



Postgraduate Diploma

Diagnostic Techniques
Applied to Ocular Oncology

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 18 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-diagnostic-techniques-applied-ocular-oncology

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tech 06 | Introduction

Oncological Ophthalmology has acquired great importance in recent years due to the increase in the incidence of intraocular tumors in adults. These tumors, although not very frequent, can have serious consequences on ocular health and the quality of life of patients. That is why it is essential to have highly trained professionals in this field to adequately address the diagnosis and treatment, thus ensuring a favorable prognosis and an optimal quality of life for affected patients.

For this reason, the TECH Postgraduate Diploma is positioned as a vital program to provide health professionals with a thorough preparation in advanced diagnostic techniques in the field of Ocular Oncology. The qualification is designed to provide a comprehensive overview of current diagnostic techniques used in the diagnosis of ocular tumors, including Radiology and malignant and benign intraocular tumors. Likewise, pathological anatomy applied to Ocular Oncology will be covered.

This program is taught in 100% online mode, which allows students to organize their time and academic resources in a flexible way and adapted to their needs. In addition, the *Relearning* pedagogical methodology, based on the directed reiteration of concepts, favor a significant and lasting learning.

This **Postgraduate Diploma in Diagnostic Techniques Applied to Ocular Oncology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by medical experts focused on Diagnostic Techniques Applied to Ocular Oncology
- Graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the dis ciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection





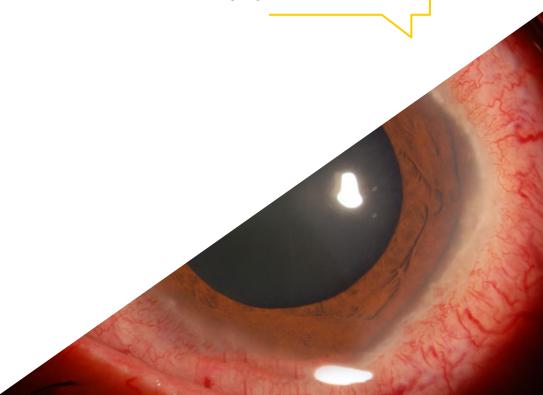
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.

You will have the most updated view of the different imaging tests for intraocular and orbital tumor pathology.

You will be able to handle with solvency all the technical considerations of the different imaging tests in this area.









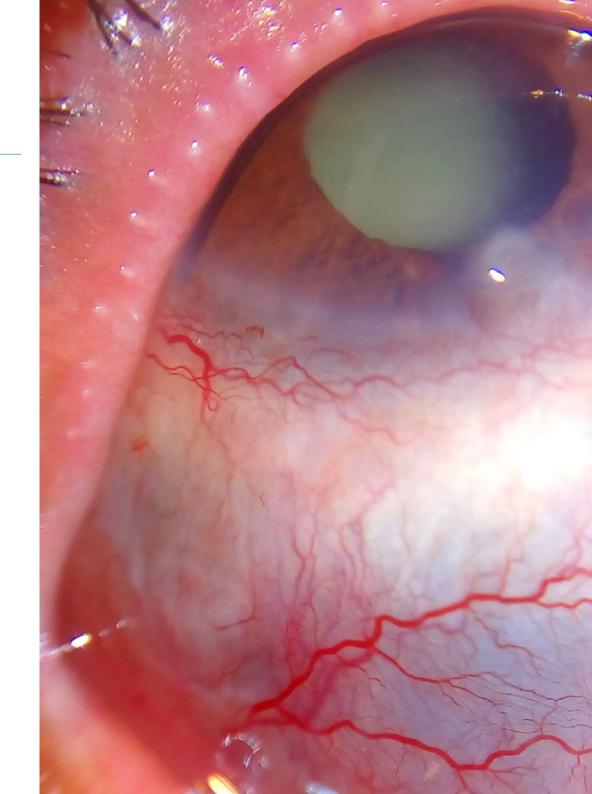
tech 10 | Objectives



General Objectives

- Update knowledge on the different tumors that can affect the eye and its appendages
- Deepen in the diagnostic-therapeutic approach of ocular neoplasms
- Delve into the main common characteristics of ocular neoplasms
- Deepen in the different tumor lesions that can affect the eyelids, the lacrimal drainage pathway and the orbit
- Investigate the different types of tumors that can be located on the ocular surface, cornea and conjunctiva
- Delve into the most recent research in Oncological Ophthalmology









Module 1. Ocular Oncology

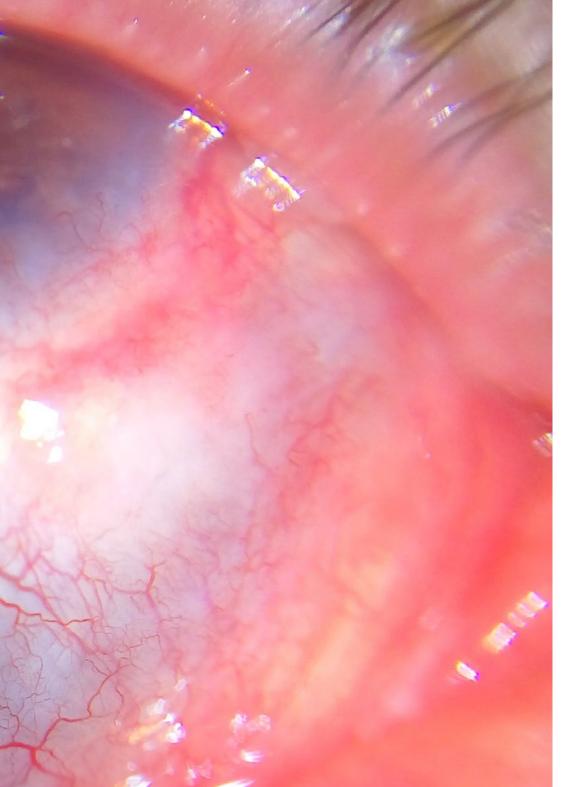
- Update knowledge on tumor pathology affecting the eyeball and its appendages
- Deepen the knowledge of diagnostic techniques and the different therapeutic possibilities available

Module 2. Radiology Applied to Ocular Oncology

- Provide the most updated knowledge about the different imaging tests for intraocular and orbital tumor pathology
- Detail the indications and technical considerations of the different imaging tests in Ocular Oncology

Module 3. Pathological Anatomy Applied to Ocular Oncology

- Deepen in the normal anatomy and histology of the eye
- Delve into the knowledge of the tumor pathology of the eyeball and related structures, reviewing the histopathological characteristics of the most frequent tumors
- Identify the main molecular alterations with clinical relevance present in Uveal Melanoma and Retinoblastoma







Chef d'orchestre invité international

Dr. Arun Singh is a true international eminence in Ophthalmic Oncology, a field to which he has dedicated more than three decades of his professional career. His career has been focused on research and treatment of eyelid and conjunctival tumors. He has also delved into pathologies such as Retinoblastoma and Uveal Melanoma.

For his exceptional clinical career, this expert has been recognized by both the Royal College of Ophthalmologists in the United Kingdom and the American Board of Ophthalmology in the United States. In addition, he has received a Career Achievement Award. These distinctions, which underline his excellence, are also endorsed by his prolific scientific work, with more than 160 articles in journals of high academic impact.

Another of his important contributions to this medical specialty has been the book Clinical Ophthalmic Oncology, considered an essential reference text for experts and professionals in training. His work as Editor of the prestigious British Journal of Ophthalmology is also noteworthy.

His excellent healthcare praxis has allowed him to take on challenges such as leading the Department of Ophthalmic Oncology at the Cleveland Clinic in Ohio, USA. From that position he has dedicated extensive efforts to the study of other ocular pathologies and, in turn, collaborates with the Pediatric Program of Uncommon Cancers and Blood Diseases. As for his training, Dr. Singh began his medical education in India, at the Jawaharlal Institute and Mandras University. Subsequently, he developed internships and fellowships at the University of Florida, as well as completed his internship at St. Luke's Hospital in Bethlehem. He completed his specialization in Ocular Oncology at Wills Eye Hospital in Philadelphia. He has also been linked to highly reputable international organizations such as the Association for Research in Vision and Ophthalmology.



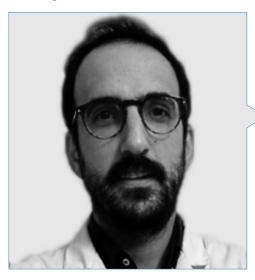
Dr. Arun Singh

- · Director, Department of Ophthalmic Oncology, Cleveland Clinic, Ohio, USA
- · Editor of the British Journal of Ophthalmology
- · Editor of the academic book Clinical Ophthalmic Oncology
- · Specialist in Ophthalmology from the University of Florida
- · Internships at Watford General and St. Luke's Hospitals, Watford, Florida
- · Graduate of Medicine and Surgery from the Jawaharlal Institute and the University of Mandras
- · Member of:
- · International Association for Research in Vision and Ophthalmology
- · International Society of Ocular Oncology
- · American Academy of Ophthalmology
- · Royal College of Ophthalmologists of London, UK
- · Royal College of Surgeons of Edinburgh, UK



Grâce à TECH, vous pourrez apprendre avec les meilleurs professionnels du monde"

Management



Dr. Garrido Hermosilla, Antonio Manuel

- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology Service of the Virgen Macarena University Hospital
- Specialist in Oculoplasty-Orbit and Ocular Oncology Units
- Specialist in National Reference Units (CSUR) for Adult and Childhood Intraocular Tumors
- Co-coordinator of Andalusian Reference Units (UPRA) for the Integral Management of the Anophthalmic Cavity and for Graves' Orbitopathy
- Tutor for Ophthalmology Interns



Dr. Relimpio López, María Isabel

- Coordinator of the Adult Intraocular Tumors Unit at the CSUR of the Hospital Virgen Macarena
- Specialist Area Physician (FEA) in the Ophthalmology Service at the University Hospital Virgen Macarena (HUVM)
- Specialist in the Retina and Ocular Oncology Units of the HUVM
- Coordinator of the National Reference Unit (CSUR) for Adult Intraocular Tumors
- Specialist in the National Reference Unit (CSUR) for Childhood Intraocular Tumors
- Ophthalmologist in the European Network ERN-PaedCan for Retinoblastoma
- PhD in Medicine, University of Seville
- Clinical Tutor of Ophthalmology, Medical Degree, University of Seville

Professors

Dr. Domínguez Serrano, Francisco de Borja

- Medical Specialist in Ophthalmology
- Specialist Area Practitioner (FEA) in the Ophthalmology Service, Virgen Macarena University Hospital (HUVM)
- Ophthalmologist in the Retina and Ocular Oncology Units of the HUVM
- Ophthalmologist at the National Reference Unit (CSUR) for Adult Intraocular Tumors
- Clinical Tutor of Ophthalmology of the Medicine Degree at the University of Seville

Dr. Soto Sierra, Marina

- Ophthalmologist of the Andalusian Ophthalmologic Institute
- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology Service of the Virgen Macarena University Hospital in the Uveitis and Ophthalmopediatrics-Strabismus Units
- Ophthalmology Clinical Tutor

Dr. Parrilla Vallejo, María

- Ophthalmologist subspecialized in Glaucoma at the Virgen Macarena University Hospital
- Medical Specialist in Ophthalmology
- Area Specialist in the Ophthalmology Service of the Virgen Macarena University Hospital (HUVM), in the Glaucoma and Ocular Oncology Units, and in the National Reference Unit for Adult Intraocular Tumors
- PhD in Medicine, University of Seville
- Tutor of Ophthalmology Resident Interns (MIR)
- Clinical tutor of Ophthalmology in the Degree of Medicine at the University of Seville

Dr. Gómez Escobar, Antonio José

- Medical Specialist in Geriatrics and Ophthalmology
- Specialist in the Ophthalmology service of the Virgen Macarena University Hospital, for the Macula and Ocular Oncology units, and the National Reference Unit (CSUR) for Adult Intraocular Tumors
- Ophthalmology Resident Medical Interns (MIR) Tutor
- Ophthalmology Clinical Tutor

Dr. Caparrós Escudero, Carlos

- Medical Specialist in Radiodiagnosis
- Specialist Area Physician (FEA) in the Radiodiagnostic Service of the Virgen Macarena University Hospital (HUVM) in the National Reference Units (CSUR) for Adult and Childhood Intraocular Tumors
- Member of the European Network ERN-PaedCan for Retinoblastoma
- Radiology Clinical Tutor

Dr. Rosales Martínez, Eduardo

- Medical Specialist in Radiodiagnosis of the Virgen Macarena University Hospital
- Medical Specialist in Radiodiagnosis
- Specialist of the Radiodiagnostic Service at the Virgen Macarena University
 Hospital (HUVM), where he is also a Tutor of Internal Medical Residents (MIR) of
 Radiodiagnostics
- Radiology Clinical Tutor

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Dr. Busquier Cerdán, Teresa

- Medical Specialist in Radiodiagnosis of the Virgen Macarena University Hospital
- Specialist in the Radiodiagnosis Service of the Virgen Macarena University Hospital (HUVM)
- Radiology Clinical Tutor

Dr. Roquette Mateos, Mario

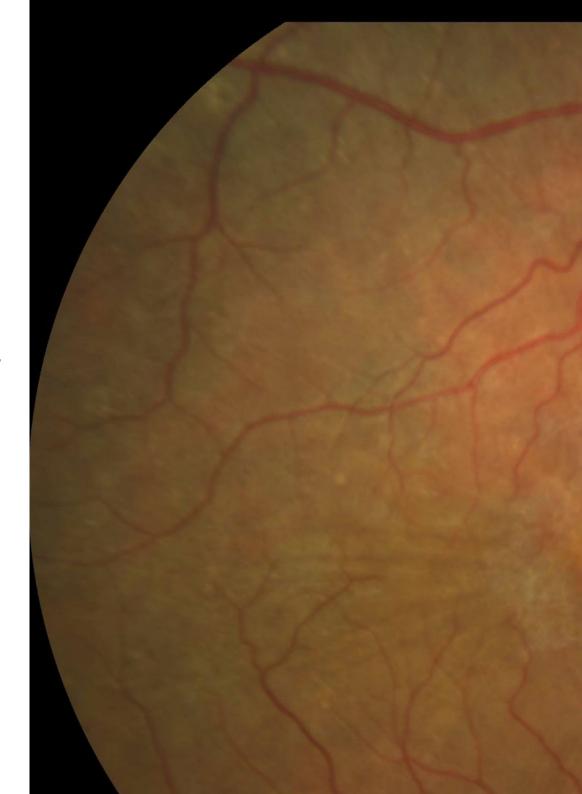
- Medical Specialist in Radiodiagnosis of the Virgen Macarena University Hospital
- Degree in Medicine from the University of Seville
- Member of: Spanish Society of Medical Radiology, Spanish Society of Emergencies Radiology

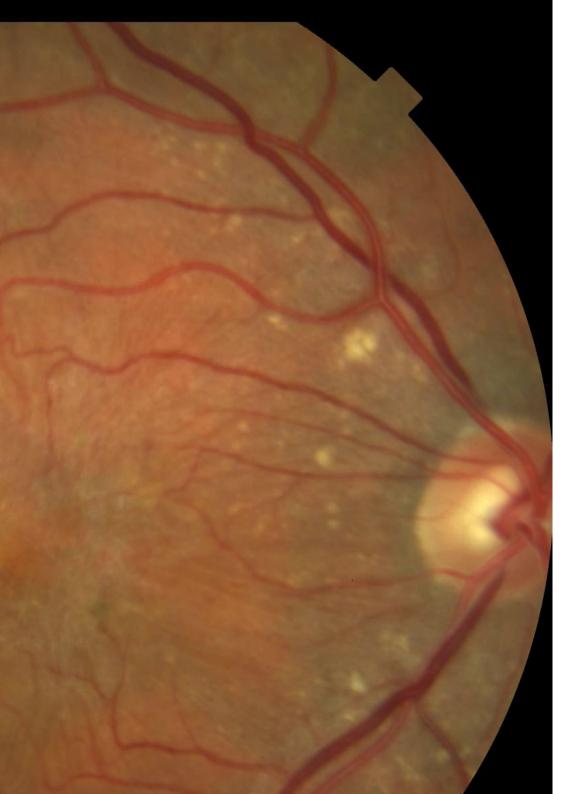
Dr. Pérez Pérez, Manuel

- Doctor Specialist in the Ophthalmology Service at Ophthalmology at Virgen Macarena University Hospital
- Collaborator of the Medical Oncology Service of the Virgen Macarena University Hospital
- Member of the Spanish Society of Pathological Anatomy

Dr. Gutiérrez Domingo, Álvaro

- Medical Specialist in Anatomic Pathology
- Specialist Area Physician (FEA) in the Ophthalmology Service at the University Hospital Virgen Macarena (HUVM)
- Member of the Spanish Pathological Anatomy Society





Course Management | 19 tech

Dr. Mayorga Pineda, María

- Medical Specialist in Radiodiagnosis of the Virgen Macarena University Hospital
- Medical Specialist in Radiodiagnosis
- Area Physician in the Radiodiagnostic Service of the Virgen Macarena University Hospital
- Members of the Spanish Society of Medical Radiology

Dr. Ríos Martín, Juan José

- Director of the Clinical Management Unit at the Virgen Macarena University Hospital
- Chief of Section of the Anatomic Pathology Department of the Virgen Macarena University Hospital
- Area Specialist of the Anatomical Pathology Department of the HUVM
- PhD in Medicine, University of Seville
- Member of the European Network ERN-PaedCan for Retinoblastoma

Dr. Torres Gómez, Francisco Javier

- Doctor Specialist in Ophthalmology at Virgen Macarena University Hospital
- Area Specialist in the Anatomical Pathology Service of the Hospital
- Surgical Pathologist at the High Resolution Hospital of Utrera
- PhD in Medicine, University of Seville
- Master's Degree in Clinical Management. CEU Cardenal Herrera
- Postgraduate Diploma in Dermatopathology
- Member of the Board of Directors of Spanish Society of Cytology





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Module 1. Ocular Oncology

- 1.1. Epidemiological Aspects of Ocular Tumors
 - 1.1.1. Definition of Neoplasms
 - 1.1.2. Risk Factors
 - 1.1.3. Epidemiology
- 1.2. Classification of Ocular Neoplasms
 - 1.2.1. According to Main Location
 - 1.2.2. According to Histological Subtype
 - 1.2.3. According to Age
- 1.3. Tumorogenesis
 - 1.3.1. Etiology of Cancer
 - 1.3.2. Immunology
 - 1.3.3. Genetics
- 1.4. Complementary Tests I
 - 1.4.1. Anterior Pole Imaging
 - 1.4.2. Retinography
 - 1.4.3. Wide Field Imaging
- 1.5. Complementary Tests II
 - 1.5.1. Fluorescein Angiography
 - 1.5.2. Indocyanine Green Angiography
 - 1.5.3. Autofluorescence
- 1.6. Complementary Tests III: Optical Coherence Tomography (OCT)
 - 1.6.1. Anterior Pole OCT
 - 1.6.2. Posterior Pole OCT
 - 1.6.3. Angio-OCT
- 1.7. Complementary Tests IV: Ultrasound
 - 1.7.1. Ultrasonic Biomicroscopy (BMU)
 - 1.7.2. Ocular Ultrasonography
 - 1.7.3. Doppler Ultrasound
- 1.8. Complementary Tests V: Orbit and Extension Study
 - 1.8.1. Computerized Axial Tomography (CAT)
 - 1.8.2. Positron Emission Tomography (PET) CT Scan
 - 1.8.3. Magnetic Resonance Imaging (MRI)

- 1.9. Biopsies in Ocular Oncology
 - 1.9.1. Criteria for Taking Biopsies
 - 1.9.2. Technique in Orbit and Ocular Surface Neoplasms
 - 1.9.3. Technique in Intraocular Neoplasms
- 1.10. Treatments Used in Ocular Oncology
 - 1.10.1. Chemotherapy
 - 1.10.2. Radiotherapy
 - 1.10.3. Surgical Treatments

Module 2. Radiology Applied to Ocular Oncology

- 2.1. Radiology in Ocular Oncology
 - 2.1.1. Technical Considerations
 - 2.1.2. Indications
 - 2.1.3. Protocols
- 2.2. Benign Intraocular Tumors
 - 2.2.1. Choroid-retinal Hemangiomas
 - 2.2.2. Retinal Melanocytoma
 - 2.2.3. Others
- 2.3. Malignant Intraocular Tumors I: Retinoblastoma
 - 2.3.1. Introduction
 - 2.3.2. Imaging Tests
 - 2.3.3. Radiological Differential Diagnosis: Coats disease, persistent hyperplastic primary vitreous, retinopathy of prematurity
- 2.4. Malignant Intraocular Tumors II: Uveal Melanoma
 - 2.4.1. Introduction
 - 2.4.2. Imaging Tests
 - 2.4.3. Clinical-Radiological Correlation
- 2.5. Malignant Intraocular Tumors III: Metastasis
 - 2.5.1. Introduction
 - 2.5.2. Imaging Tests
 - 2.5.3. Clinical- Radiological Correlation
- 2.6. Benign Orbital Tumors I
 - 2.6.1. Child Hemangioma
 - 2.6.2. Optic Tract Glioma
 - 2.6.3. Optic Nerve Sheath Meningioma

- 2.7. Benign Orbital Tumors II
 - 2.7.1. Pleomorphic Adenoma or Mixed Tumor of the Lacrimal Gland
 - 2.7.2. Dermoid Cysts
 - 2.7.3. Lipoma
- 2.8. Malign Orbital Tumors I
 - 2.8.1. Metastasis
 - 2.8.2. Lymphoproliferative Lesions
 - 2.8.3. Rhabdomyosarcoma
- 2.9. Malign Orbital Tumors II
 - 2.9.1. Lacrimal Gland Carcinomas
 - 2.9.2. Plasma Cell Tumors
 - 2.9.3. Others
- 2.10. Other Orbital Tumor Pathology for Differential Diagnosis
 - 2.10.1. Lymphatic Malformations: lymphagioma
 - 2.10.2. Arteriovenous Malformations
 - 2.10.3. Idiopathic Orbital Inflammatory Disease or Inflammatory Pseudotumor of the Orbit

Module 3. Pathological Anatomy Applied to Ocular Oncology

- 3.1. Anatomy and Histology of the Eye
 - 3.1.1. Eye Anatomy
 - 3.1.2. Histology of the Eye
- 3.2. Tumors of the Ocular Orbit
 - 3.2.1. Pediatric Tumors of the Orbit
 - 3.2.2. Benign Tumors of the Orbit
 - 3.2.3. Malignant Tumors of the Orbit
- 3.3. Conjunctival and Corneal Tumors
 - 3.3.1. Epithelial Tumors
 - 3.3.2. Melanocytic Tumors
 - 3.3.3. Other tumours
- 3.4. Tumors of the Uvea (non-melanoma)
 - 3.4.1. Benign Melanocytes tumors
 - 3.4.2. Epithelial Tumors
 - 3.4.3. Other tumours

- 3.5. Uveal Melanoma
 - 3.5.1. Epidemiology
 - 3.5.2. Histopathology
 - 3.5.3. Molecular Aspects
- 3.6. Neurosensory Retinal Tumors
 - 3.6.1. Retinoblastoma
 - 3.6.2. Astrocytoma
 - 3.6.3. Vitreoretinal Lymphoma
- 3.7. Retinal Epithelial Tumors
 - 3.7.1. Benign Tumors
 - 3.7.2. Malignant tumours
- 3.8. Optic Disc and Optic Nerve Tumors
 - 3.8.1. Primary Tumors
 - 3.8.2. Secondary Tumors
- 3.9. Lacrimal Gland Tumors
 - 3.9.1. Epithelial Tumors
 - 3.9.2. Hematolymphoid Tumors
 - 3.9.3. Secondary Tumors
- 3.10. Tear Drainage System Tumors
 - 3.10.1. Epithelial Tumors
 - 3.10.2. Other tumours



Tour the main tumors of the Tear Drainage system and make a difference as an ophthalmologist"





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At TECH we use the Case Method

What should a professional do in a given situation? 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. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning 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, trying to recreate the real conditions in the physician's professional 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:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 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 the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

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



Methodology | 29 tech

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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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.

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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 highly 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.



Surgical Techniques and Procedures on Video

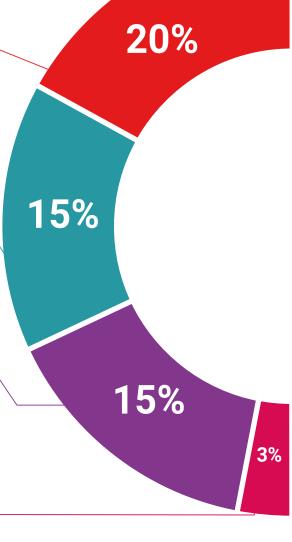
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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



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 on the usefulness of learning by observing experts.

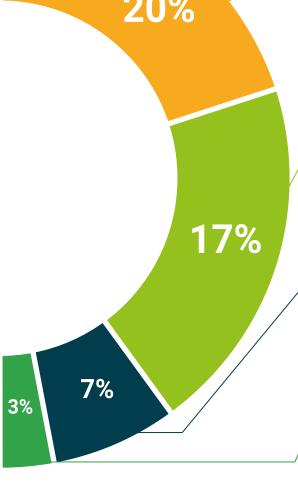
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



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.









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This program will allow you to obtain your **Postgraduate Diploma in Diagnostic Techniques Applied to Ocular Oncology** 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** title 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: Postgraduate Diploma in Diagnostic Techniques Applied to Ocular Oncology

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



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

Postgraduate Diploma in Diagnostic Techniques Applied to Ocular Oncology

This is a program of 450 hours of duration equivalent to 18 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



^{*}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.

health confidence people
leducation information tutors
guarantee accreditation teaching
institutions technology learning



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