

Postgraduate Certificate

Refractive Surgery and Glaucoma





Postgraduate Certificate Refractive Surgery and Glaucoma

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/refractive-surgery-glaucoma

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 18

05

Methodology

p. 22

06

Certificate

p. 30

01

Introduction

Refractive Surgery is a specialty that focuses on correcting refractive errors of the eye, such as myopia and astigmatism, through the use of surgical techniques. Glaucoma, on the other hand, is a disease that affects the optic nerve and can lead to vision loss. It is essential for ophthalmologists to have specialized knowledge in these areas, as early diagnosis and timely treatment can significantly improve patients' quality of life. For this reason, TECH has designed this 100% online degree focused on the evaluation and surgical treatment of these pathologies, as well as the latest techniques and technologies available allowing students to access training from anywhere and at any time.



A blue-tinted microscopic image of a lens, likely a contact lens or a similar optical component, with the text '12.5x' visible on its surface. The image is partially obscured by a diagonal white and blue graphic element.

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Are you a healthcare professional interested in improving your skills in Refractive Surgery and Glaucoma? This Postgraduate Certificate is for you! You will learn about the latest advances in glaucoma diagnosis and treatment, as well as innovative surgical techniques for the correction of refractive errors”

Glaucoma is a chronic eye disease that can lead to blindness if not detected and treated in time, while Refractive Surgery is a surgical technique used to correct refractive defects. The combination of these two areas is important, as many Glaucoma patients also need refractive correction and ophthalmology professionals must have a thorough knowledge of both areas in order to properly treat their patients.

In this context, a Postgraduate Certificate in Refractive Surgery and Glaucoma is essential for those ophthalmology professionals seeking to improve and update their knowledge in these areas. This TECH degree will allow them to learn the latest techniques and advances in the treatment of both diseases, which will translate into better care for their patients. In addition, the program will provide a more complete understanding of the relationship between Refractive Surgery and Glaucoma, which will help to avoid complications in patients.

During the Postgraduate Certificate students will learn basic aspects of Glaucoma, ocular exploration, clinical forms, treatments and the relationship between Refractive Surgery and Glaucoma. Students will also obtain detailed information on postoperative follow-up and complications that may arise in the treatment of these diseases.

Within the program, students will have access to quality academic resources and will be able to organize their study time in a flexible way, since it is taught 100% online and using the innovative methodology of TECH, Relearning. This online Postgraduate Certificate offers a unique opportunity for ophthalmology professionals to update their knowledge and skills without compromising their daily work.

This **Postgraduate Certificate in Refractive Surgery and Glaucoma** 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 Refractive Surgery and Glaucoma
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



With this program, you will be able to perform a complete examination of the patient with Glaucoma, as well as to establish a follow-up protocol and appropriate treatment for each case”

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Do you want to improve the quality of life of your glaucoma patients? Achieve your goal thanks to this degree, which will provide you with the tools and knowledge necessary to diagnose and treat this pathology. in an effective way”

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 professional 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 professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

By completing this Postgraduate Certificate you will be able to acquire specialized training in the management and treatment of patients with ocular pathologies related to Glaucoma and Refractive Surgery.

The teaching team of this degree has renowned experts in the field of Refractive Surgery and Glaucoma, who will impart their knowledge with a practical methodology focused on the needs of the students.



02 Objectives

By participating in this University program, students will have the opportunity to deepen their knowledge about Glaucoma and its relationship with Refractive Surgery. Through the exploration of the clinical forms of this disease, students will be able to acquire skills to identify the symptoms and establish an accurate diagnosis. In addition, the different existing treatments for Glaucoma will be explored, including laser surgeries, hypotensive drugs and other surgical procedures, allowing students to understand the advantages and disadvantages of each.



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With this Postgraduate Certificate you will learn about the different surgical techniques available for the treatment of Glaucoma and how they can affect the patient's ocular refraction”



General Objectives

- ♦ Delve into the basic principles of optics, as well as refractive defects and their treatment possibilities
- ♦ Describe the corneal morphology and function on which much of Refractive Surgery is applied
- ♦ Go deeper in the operation of an excimer laser and what are the fundamental characteristics of some excimer platforms
- ♦ To investigate the indications and contraindications of Refractive Surgery, as well as the algorithms used for the surgery
- ♦ Obtain an update on the studies to be performed on patients in order to correctly assess the indication for surgery
- ♦ Describe the processes of preparation for Refractive Surgery
- ♦ To deepen in the different techniques applied on the cornea for the correction of refractive errors
- ♦ Identify the surgeries that can be performed on the crystalline lens to eliminate the patients' graduation defects
- ♦ Be aware of the different lenses that are used for this surgery without acting on the cornea or lens
- ♦ To deepen the relationship between Glaucoma and Refractive Surgery





Specific Objectives

- ♦ Identify the clinical forms of Glaucoma
- ♦ Delve into how the diagnosis of Glaucoma is made
- ♦ To establish the relationship between Glaucoma and Corneal and Intraocular Refractive Surgery, as well as the follow-up of these patients



Thanks to this degree you will be able to identify the possible complications of these Refractive Surgery interventions and learn how to deal with them"



03

Course Management

The TECH Postgraduate Certificate in Refractive Surgery and Glaucoma has a management committed to excellence in student training. The teachers who teach the program are highly qualified in the subject, with vast experience in the field of ophthalmology and solid academic knowledge. TECH ensured that teachers will have the necessary resources to provide up-to-date and quality training to students, and monitors students' progress throughout the degree program. Thus, it is positioned as a unique opportunity for those interested in specializing in Refractive Surgery and Glaucoma, with the guarantees of receiving an elite education that will allow them to excel in the professional field.



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The goal of these experts is to prepare students to provide comprehensive treatment to Glaucoma patients and to provide adequate follow-up for those who underwent refractive surgery”

International Guest Director

Dr. Beeran Meghpara is an internationally renowned ophthalmologist specializing in Cornea, Cataract and Laser Refractive Surgery.

He has served as Director of Refractive Surgery and member of the Cornea Service at Wills Eye Hospital in Philadelphia, a world leading center in the treatment of eye diseases. Here, this expert has performed all forms of Corneal Transplantation, including Partial Thickness DMEK and DALK. In addition, he has extensive experience with the latest technology in Cataract Surgery, including Femtosecond Laser and Intraocular Lens Implants, which correct Astigmatism and Presbyopia. He also specializes in the use of Bladeless Custom LASIK, Advanced Surface Ablation and Phakic Intraocular Lens Surgery to help patients reduce their dependence on glasses and contact lenses.

In addition, Dr. Beeran Meghpara has excelled as a scholar by publishing numerous articles and presenting his research at local, national and international conferences, contributing to the field of Ophthalmology. Likewise, he has been honored with the prestigious Golden Apple Resident Teaching Award (2019), in recognition of his dedication to teaching residents in Ophthalmology. In addition, he has been selected by his peers as one of Philadelphia magazine's Best Doctors (2021-2024) and Best Doctor by Castle Connolly (2021), a leading research and information resource for patients seeking the best medical care.

In addition to his clinical and academic work, he has served as an ophthalmologist for the Philadelphia Phillies baseball team, underscoring his ability to handle highly complex cases. In this sense, his commitment to technological innovation, as well as his excellence in medical care, continues to raise the standards in ophthalmic practice worldwide.



Dr. Meghpara, Beeran

- ♦ Director of the Department of Refractive Surgery at Wills Eye Hospital, Pennsylvania, United States
- ♦ Ophthalmic Surgeon at the Center for Advanced Ophthalmic Care, Delaware
- ♦ Fellow in Cornea, Refractive Surgery and External Disease at the University of Colorado
- ♦ Resident Ophthalmology Physician at Cullen Eye Institute, Texas
- ♦ Intern at St. Joseph's Hospital, New Hampshire
- ♦ Doctor of Medicine from the University of Illinois, Chicago
- ♦ Graduate of the University of Illinois, Chicago
- ♦ Selected for the Alpha Omega Alpha Medical Honor Society
- ♦ Golden Apple Resident Teaching Award (2019)
- ♦ Best Doctor from Philadelphia Magazine (2021-2024)
- ♦ Best Doctor from Castle Connolly (2021)

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Thanks to TECH, you will be able to learn with the best professionals in the world”

Management



Dr. José Miguel Román

- ◆ Ophthalmologist at Oftalvist Málaga
- ◆ Ophthalmologist at Vissum Madrid
- ◆ Ophthalmologist at Dubai International Medical Center
- ◆ Medical Director of Vissum Madrid Sur and Vissum Málaga
- ◆ Specialist in Ophthalmology at the San Carlos Clinical Hospital
- ◆ Doctor in Ophthalmology
- ◆ Degree in Medicine and Surgery General: from the Autonomous University of Madrid
- ◆ Member of the Spanish Society of Ophthalmology and International Society of Ocular Inflammation, International Society of Ocular Inflammation



Dr. Hazem Alaskar Alani

- Ophthalmologist at Oftalvist Málaga
- Surgical Director of Poniente University Hospital
- Head of the Ophthalmology Diseases Department, Poniente Hospital
- Specialist in Ophthalmology at the Puerta De las Nieves University Hospital
- Degree in Medicine and Surgery from the University of Valencia
- Doctor of Medicine and Surgery from the University of Almería
- Master's Degree in Health Management and Planning, European University of Madrid
- Master's Degree in Ophthalmology Medicine from Cardenal Herrera University
- Member of the European Retina Society EURETINA, SEDISA, The Spanish Society of Health Managers, Fellow of the European Board of Ophthalmology, FEBO European Society of Cataract and Refractive Surgery, Spanish Society of Implanto Refractive Surgery SECOIR, Andalusian Society of Ophthalmology SAO, Spanish Society of Retina and Vitreous SERV, Fellow of the European School of Retina and Surgery EVRS

04

Structure and Content

The contents of this degree have been designed with the objective of providing the student with solid information on the theoretical and practical bases of the specialty. Therefore, throughout the University Course, different aspects related to the epidemiology, prevalence, risk factors, follow-up and screening protocols in relation to glaucoma will be addressed. In addition, the clinical forms, treatments and refractive surgeries related to this pathology will be studied, offering a complete approach to the subject. The contents of the program have been structured in such a way as to allow a progression in learning and, to this end, different topics have been established that will allow the student to acquire skills and knowledge progressively.





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Discover everything that is currently happening in the field of medicine specializing in Refractive Surgery and Glaucoma and get trained to face the new changes in the area”

Module 1. Refractive Surgery and Glaucoma

- 1.1. Basic aspects of Glaucoma
 - 1.1.1. Epidemiology
 - 1.1.2. Prevalence
 - 1.1.3. Risk Factors
 - 1.1.4. Follow-up protocol
- 1.2. Exploración I
 - 1.2.1. IOP
 - 1.2.2. Gonioscopy
 - 1.2.3. Angle
 - 1.2.4. Optic nerve head
- 1.3. Exploration II
 - 1.3.1. Visual field
 - 1.3.2. Imaging and Glaucoma
 - 1.3.3. Progression
 - 1.3.4. Genetics
- 1.4. Clinical Forms
 - 1.4.1. Ocular hypertension (OHT)
 - 1.4.2. Primary open angle glaucoma
 - 1.4.3. Primary closed angle glaucoma
 - 1.4.4. Congenital Glaucoma
- 1.5. Clinical forms II
 - 1.5.1. Primary and secondary angular closure
 - 1.5.2. Pseudoexfoliative and pigmentary glaucoma
 - 1.5.3. Glaucoma in children and adolescents
 - 1.5.4. Glaucoma secondary to ocular surgery
- 1.6. Treatment I
 - 1.6.1. Target IOP
 - 1.6.2. Hypotensive drugs
 - 1.6.3. Dietary supplements
 - 1.6.4. Neuroprotection



- 1.7. II Treatment
 - 1.7.1. Laser surgery Trabeculoplasty
 - 1.7.2. Classic trabeculectomy
 - 1.7.3. Non-penetrating deep sclerectomy (NPS)
 - 1.7.4. Valve implants
- 1.8. Intraocular Lens Refractive Surgery and Glaucoma
 - 1.8.1. Angle support lenses and Glaucoma
 - 1.8.2. Iris-anchored lenses and Glaucoma
 - 1.8.3. Multifocal Lenses and Glaucoma
 - 1.8.4. Postoperative Aftercare
- 1.9. Corneal Refractive and Glaucoma Surgery
 - 1.9.1. Refractive Surgery Considerations for Glaucoma Patients
 - 1.9.2. Effects of Refractive Surgery on Glaucoma
 - 1.9.3. Tracking algorithm
 - 1.9.4. Risk factors in the progression of myopic glaucoma after corneal refractive surgery
- 1.10. Final Aspects
 - 1.10.1. Methods of IOP measurement after surgery
 - 1.10.2. Postoperative Dry Eye and Glaucoma Treatment
 - 1.10.3. Effect of corticosteroids on IOP
 - 1.10.4. Addressing complications



Learn at your own pace, from the comfort of your home and without specific schedules with this University Course in Refractive Surgery and Glaucoma”



05

Methodology

This academic program offers students a different way of learning. 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.





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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 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.

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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. 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.



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.



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.



06 Certificate

The Postgraduate Certificate in Refractive Surgery and Glaucoma guarantees, in addition to the most rigorous and updated training, access to a Postgraduate Certificate issued by TECH Technological University.





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Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

This **Postgraduate Certificate in Refractive Surgery and Glaucoma** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University**.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Glaucoma and Refractive Surgery**

Official N° of hours: **150 h.**



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

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development languages
virtual classroom



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and Glaucoma

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