

# Postgraduate Diploma Macula, Retina and Vitreous Surgery





## Postgraduate Diploma Macula, Retina and Vitreous Surgery

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 16 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-macula-retina-vitreous-surgery](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-macula-retina-vitreous-surgery)

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# 01

# Introduction

Ophthalmologists and retinologists need to continuously update their knowledge of surgical interventions, so that they are able to apply the main technologies, taking into account the different ocular pathologies they may face in their daily practice. If you want to specialize in macula, retina and vitreous surgery, TECH offers you the most complete and up-to-date education in the field.







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*Eye diseases that require surgical intervention require up-to-date knowledge of physicians so that they are able to use the latest tools in the field"*

This Postgraduate Diploma in Macula, Retina and Vitreous Surgery aims to provide ophthalmologists and retinologists with superior education in this field so that they are able to perform successful ocular interventions, improving the visual health of their patients.

To this end, the program includes a very complete education in surgery, a fundamental discipline for the students. In this way, all the material options that are essential today are described, giving a tour of the material needed for both scleral surgery and vitrectomy and ending with the latest 3D microscope technology, which will dominate surgery in the coming years.

In addition, comprehensive education on retinal detachment, which is the pathology par excellence in the surgery of retinal diseases, is shown. Its treatment is surgical in any of its varieties and, therefore, in this Postgraduate Diploma, all the possible techniques for the treatment of this disease are studied in depth, from the application of laser with its possibilities and characteristics, through scleral surgery and ending with vitrectomy.

In short, students will have detailed information on the most necessary aspects for the surgical treatment of the main ocular pathologies that require surgical intervention, in order to have detailed knowledge of the most appropriate procedures for each one of them.

The Postgraduate Diploma has a teaching staff specialized in ocular pathology and surgery, who contribute both their practical experience in their day-to-day work in private practice and their long experience in teaching at national and international level. In addition, it has the advantage of being a 100% online educational program, so students can decide from where to study and at what time to do it. Therefore, they will be able to flexibly self-direct their study hours.

This **Postgraduate Diploma in Macula, Retina and Vitreous Surgery** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of clinical cases presented by experts in ocular pathology and surgery
- 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
- The presentation of practical workshops on procedures and techniques
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist field
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Special emphasis on test-based medicine and research methodologies
- Content that is accessible from any fixed or portable device with an Internet connection



*This Postgraduate Diploma is the best option you can find to increase your knowledge in ocular disease and give a plus to your professional career"*

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*This Postgraduate Diploma is the best investment you can make in education to update your knowledge in macula, retina and vitreous surgery”*

The teaching staff includes a team of prestigious urologists, who bring their experience to this educational program, as well as renowned specialists from leading scientific societies.

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

The design of this program focuses on problem-based learning, through which professionals must try to solve the different professional practice situations that arise during the academic year. To do so, they will be assisted by an innovative interactive video system created by renowned experts in Macula, Retina and Vitreous Surgery, with extensive teaching experience.

*This 100% online Postgraduate Diploma will allow you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.*

*Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your education.*





# 02 Objectives

The Postgraduate Diploma in Macula, Retina and Vitreous Surgery is oriented to facilitate the performance of healthcare professionals with the latest advances and most innovative treatments in the sector.







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*This program will both bring a sense of confidence to your daily healthcare activities and help you grow professionally”*



## General Objectives

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- Provide students with the highest level of knowledge in the world of retina, macula and vitreous surgery
- Enhance your understanding of vitrectomies associated with complications of anterior pole surgeries
- Obtain detailed knowledge of surgery in diabetic patients, as well as surgical techniques applicable to endophthalmitis and virus retinitis
- Obtain a comprehensive and in-depth knowledge of all aspects of retinal detachment treatment
- Learn all about surgery for myopia, the most common diseases of the macula and ocular trauma
- Learn the latest surgical techniques





## Specific Objectives

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### Module 1. Introduction to Retinal Surgery, Vitrectomy Arising from Complications of Anterior Pole Surgery, Surgery on Diabetic Patients, Endophthalmitis and Viral Retinitis

- ◆ Know the instruments and different therapeutic alternatives for retinal surgery
- ◆ Study basic vitrectomy techniques
- ◆ Know how to identify surgical techniques to resolve complications arising from cataract surgery
- ◆ Further develop knowledge of the surgical techniques necessary to resolve complications arising from glaucoma surgery
- ◆ Learn how to do a diagnostic biopsy
- ◆ Have knowledge of surgery for the treatment of diabetes mellitus, surgical management of endophthalmitis, surgical treatment of virus retinitis, and intravitreal drugs and their concentrations

### Module 2. Comprehensive Treatment for Retinal Detachment

- ◆ Know the basic and exploratory principles of retinal detachment
- ◆ Learn the principles of surgery for the treatment of retinal detachment
- ◆ Know how to perform scleral surgery applicable to retinal detachment
- ◆ Learn the principles of surgery for the treatment of retinal detachment
- ◆ Know the alternative methods for the treatment of retinal detachment
- ◆ Learn about retinal detachment vitrectomy
- ◆ Know the complex techniques for the treatment of retinal detachment
- ◆ Understand the complications of retinal detachment treatment

### Module 3. Surgery for High Myopia. Surgery in Diseases of the Macula. Surgical Techniques in Ocular Trauma. Latest Surgical Techniques

- ◆ Know about restorative surgery associated with high myopia
- ◆ Acquire the surgical techniques applicable to the main diseases of the macula, such as macular hole, epiretinal membranes or vitreomacular traction syndromes
- ◆ Study surgical techniques for the repair of ocular trauma
- ◆ Learn about other surgical techniques for the treatment of specific retinal pathologies, such as Terson's syndrome, macular translocation, artificial vision, or surgical techniques for the repair of choroidal detachments



*Our goal is to achieve academic excellence and to help you achieve it too"*



03

# Course Management

The creation of the materials has been carried out by a team of leading professionals in ophthalmology, who perform their professional activity in the main hospitals in the country, transferring to the program the experience gained in their jobs throughout their careers.



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*The best professionals in this field have joined forces to offer you the most specialised and up-to-date knowledge in the field”*

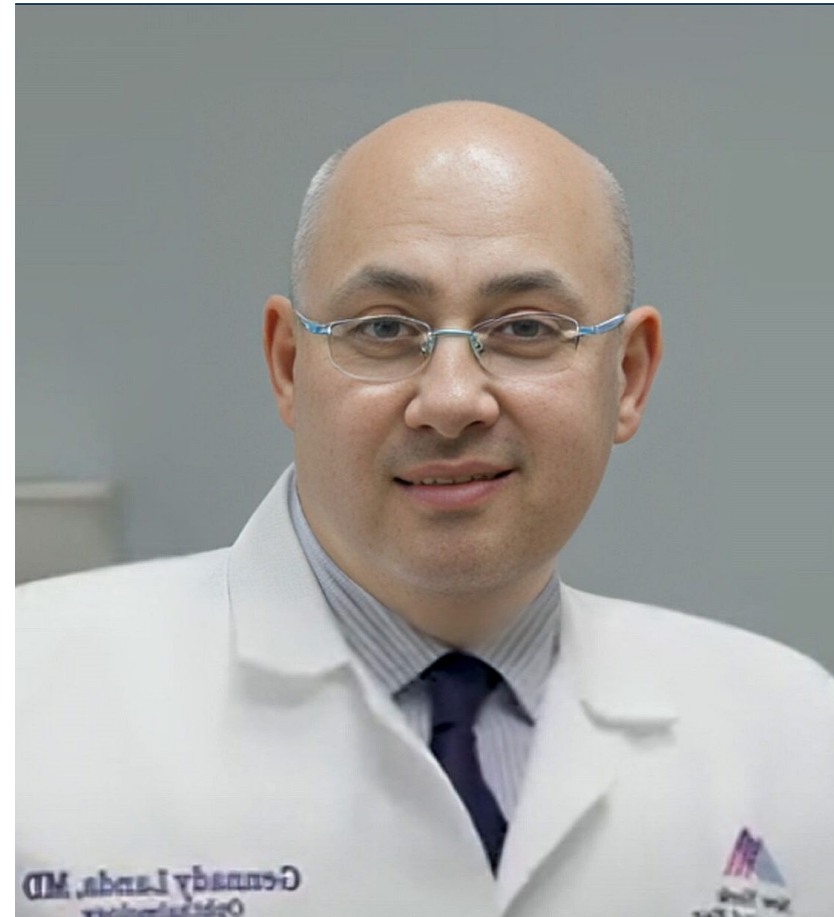
## International Guest Director

Dr. Gennady Landa is a leading vitreoretinal specialist, recognized for his skill in the surgical and medical treatment of a wide range of diseases affecting the back of the eye. In fact, his expertise encompasses conditions such as Macular Degeneration, Diabetic Retinopathy, Retinal Detachment and various Hereditary and Inflammatory Retinal Diseases. With a particular focus on macular, retinal and vitreous surgery, he has contributed to the advancement of treatments such as laser surgery, intraocular injections and vitrectomy techniques.

Throughout his career, he has played key roles in some of the most prestigious ophthalmological institutions in the United States. In this way, he has been Vice Chair of the Ophthalmology Clinic at Mount Sinai Hospital, as well as Director of the Retina Department at the New York Eye and Ear Hospital (NYEEL), one of the oldest and most renowned ophthalmology hospitals in the country. At the same center, he has also held the positions of Associate Director of the Vitreoretinal Fellowship and Medical Director of the Tribeca Office.

He has also been dedicated to exploring new ways of treatment and prevention of Age-Related Macular Degeneration and other Ocular Diseases. He has published more than 35 scientific articles in peer-reviewed journals and chapters in specialized books, contributing to the development of new retinal imaging techniques.

Internationally, he has been recognized for his contributions to Ophthalmology, receiving a prestigious Honor Award from the American Society of Retina Specialists. This recognition has underscored his leadership in the field of retina, both in clinical practice and research. Likewise, his participation in international congresses and scientific meetings has consolidated his reputation as a globally renowned expert.





## Dr. Landa, Gennady

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- Vice Chair of the Ophthalmology Clinic at Mount Sinai Hospital, New York, United States
- Director of the Retina Service at the New York Eye and Ear Hospital (NYEEH)
- Associate Director of the Vitreoretinal Fellowship at the New York Eye and Ear Hospital (NYEEH)
- Medical Director of the Tribeca Office at New York Eye and Ear Hospital (NYEEH)
- Retina Specialist at the New York Eye and Ear Hospital (NYEEH)
- Doctor of Medicine from the Israel Technion Institute of Technology
- Honorary Award from the American Society of Retinal Specialists

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

## Management



### Dr. Armadá Maresca, Félix

- ♦ Chief of Ophthalmology Service, University Hospital La Paz, Madrid
- ♦ Doctor of Medicine. Autonomous University of Madrid
- ♦ Degree in Medicine. Alcalá de Henares University
- ♦ Director of the Department of Ophthalmology at the San Francisco de Asís University Hospital in Madrid
- ♦ Certified Ophthalmic Photographer, University of Wisconsin, Madison, USA
- ♦ The Chalfont Project, Chalfont St Giles, HP8 4XU United Kingdom
- ♦ ESADE – Course in Strategic Management of Clinical Services
- ♦ IESE - VISIONA course, clinical management in ophthalmology
- ♦ Professor in the Degree of Medicine at the Alfonso X El Sabio University
- ♦ Lecturer in the Master's Degree "Expert in Health Management in Ophthalmology" of the Ministry of Health of the Community of Madrid
- ♦ Member of the Society of Ophthalmology of Madrid
- ♦ External Collaborator of Several Companies in the Medical Sector

## Professors

### Dr. Fernández Vega Sanz, Álvaro

- ◆ Deputy Director of the Fernández-Vega Ophthalmological Institute
- ◆ Head of the Retina and Vitreous Department at the Fernández-Vega Ophthalmological Institute, 1989-present
- ◆ Partner and owner of the Fernández-Vega Ophthalmological Institute, performing 300 to 350 retina/vitreous operations per year
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Medical Specialist in Ophthalmology. 1986, Residency in Ophthalmology at the Clinical Hospital San Carlos of Madrid. 1982-1986, through the M.I.R. exam
- ◆ Member of the Spanish Society of Ophthalmology
- ◆ Member of the International Advisory Board of the International Schepens Society
- ◆ Founder and member of the Spanish Retina and Vitreous Society (SERV)

### Dr. Nadal, Jeroni

- ◆ Deputy Medical Director of the Barraquer Ophthalmology Centre
- ◆ Head of the Retina and Vitreous Department
- ◆ Coordinator of the Macula Unit
- ◆ PhD in Medicine and Surgery
- ◆ Degree in Medicine and Surgery. Autonomous University of Barcelona
- ◆ Specialist in Ophthalmology. Mayo Clinic Rochester Minnesota
- ◆ Retina and Vitreous Surgeon. Mayo Clinic Rochester Minnesota, USA
- ◆ Research excellence award from the Central University of Barcelona
- ◆ President of the Catalan Ophthalmology Society
- ◆ First Ophthalmologist to implant an artificial vision device



# 04

# Structure and Content

The structure of the syllabus has been designed by a team of professionals who are knowledgeable regarding the implications of medical education in the approach to patients, aware of the relevance of current education and committed to quality teaching through new educational technologies.





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*This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market”*

**Module 1.** Introduction to Retinal Surgery, Vitrectomy Arising from Complications of Anterior Pole Surgery, Surgery on Diabetic Patients, Endophthalmitis and Viral Retinitis

- 1.1. Instruments, Materials and Therapeutic Alternatives
  - 1.1.1. Methods to Induce Chorioretinal Adhesion
  - 1.1.2. Scleral Surgery Equipment
  - 1.1.3. Gases for Intraocular Use
  - 1.1.4. Silicone Oils
  - 1.1.5. Perfluorocarbons
  - 1.1.6. Cryotherapy
  - 1.1.7. The Vitrectomy, Surgical Principles and Techniques
  - 1.1.8. Different Sizes and Systems of Vitrectomy Probes
  - 1.1.9. Endocular Light Sources and Diversity of Light Terminals
  - 1.1.10. Endovascular Lasers
  - 1.1.11. Accessory Instruments
  - 1.1.12. Visualisation Systems in Vitrectomy. Surgical Lenses. Wide Field
  - 1.1.13. Microscope Systems, 3D Microscopes
- 1.2. Advanced Vitrectomy Techniques
  - 1.2.1. Simple Vitrectomy. Location of Pars Plana
  - 1.2.2. Lensectomy of the Pars Plana
  - 1.2.3. Endocyclophotocoagulation
  - 1.2.4. Endolaser Techniques
  - 1.2.5. Liquid Air Exchange Techniques. Gas Injection Techniques
  - 1.2.6. Liquid Perfluorocarbon Injection Techniques
  - 1.2.7. Techniques for the Use and Injection of Silicone Oils
  - 1.2.8. Control of Intraocular Hemorrhage During Surgery
  - 1.2.9. Pupil Management, Pupillary Opening, for Visualisation in Vitrectomy
  - 1.2.10. Handling for Removal of Air or Subretinal Substances
- 1.3. Surgical Techniques for the Management of Complications Arising from Cataract Surgery
  - 1.3.1. Anterior Vitrectomy
  - 1.3.2. Vitrectomy of Dislocated Crystalline Lens to Vitreous or Crystalline Debris in Vitreous
  - 1.3.3. Surgical Techniques to Manage Dislocated Vitreous Lenses
  - 1.3.4. Techniques for Secondary Lens Implantation in the Absence of a Capsular Bag. Current Lens Models
  - 1.3.5. Techniques for the Treatment of Vitreous Incarcerations
- 1.4. Glaucoma-related Vitrectomy Techniques
  - 1.4.1. Filter Surgery and Vitrectomy
  - 1.4.2. Lensectomy and Vitrectomy in the Presence of Leakage Blebs
  - 1.4.3. Techniques for the Management of Pupillary and Angular Blockade
  - 1.4.4. Techniques for Vitreous Chamber Valve Device Implantation
- 1.5. Diagnostic Biopsy
  - 1.5.1. Biopsy Techniques for the Anterior Segment
  - 1.5.2. Techniques for Vitreous Biopsy and Collection of Material for Analysis
  - 1.5.3. Retinal Biopsy Techniques
  - 1.5.4. Uveal Biopsy Techniques
- 1.6. Vitrectomy in Diabetes Mellitus
  - 1.6.1. Indications for Surgery in DM
  - 1.6.2. Vitrectomy of Simple Hemorrhage
  - 1.6.3. Vitrectomy for Diabetic Tractional Detachment
  - 1.6.4. Vitrectomy for Progressive Fibrovascular Proliferation
  - 1.6.5. Vitrectomy for Dense Macular Hemorrhages
  - 1.6.6. Vitrectomy in Diabetic Rhegmatogenous Detachment
  - 1.6.7. Use of Silicone in the Diabetic Patient
- 1.7. Vitrectomy for Endophthalmitis
  - 1.7.1. Pharmacological Management of Endophthalmitis
  - 1.7.2. Sampling for Microbiology
  - 1.7.3. Vitrectomy of the Patient with Endophthalmitis



- 1.8. Vitrectomy for Retinitis Due to Viruses
  - 1.8.1. Vitrectomy in Herpes Simplex Retinitis
  - 1.8.2. Vitrectomy in Cytomegalovirus Retinitis
  - 1.8.3. Other Herpetic Retinitis
  - 1.8.4. Vitrectomy in Acute Retinal Necrosis
  - 1.8.5. Intravitreal Antiviral Agents
- 1.9. Intravitreal Pharmaceuticals
  - 1.9.1. Slow Release Implants
  - 1.9.2. Intravitreal Agents, Miscellaneous

## Module 2. Comprehensive Treatment for Retinal Detachment

- 2.1. Retinal Detachment
  - 2.1.1. Extraocular Anatomy and Physiology Adapted to Retinal Detachment Treatment
  - 2.1.2. Extraocular Anatomy and Physiology Adapted to Retinal Detachment Treatment
  - 2.1.3. Vitreous Liquefaction
  - 2.1.4. Posterior Vitreous Detachment
  - 2.1.5. Abnormal Vitreous-Retinal Adhesions
  - 2.1.6. Reticular Degeneration
  - 2.1.7. Asymptomatic Retinal Tears
  - 2.1.8. In-consultancy Examination of Retinal Detachment. Color Coding Dhen Drawing
  - 2.1.9. Lincoff's Laws. Methods for Locating Retinal Tears
- 2.2. Principles of Retinal Reapplication Surgery
  - 2.2.1. Physiological Factors That Maintain Retinal Detachment
  - 2.2.2. Factors That Induce Retinal Detachment
  - 2.2.3. History of Retinal Detachment Surgery, Contributions of Jules Gonin
  - 2.2.4. Evolution of Contemporary Surgical Techniques.
  - 2.2.5. Pre-Operative Eye Examination
  - 2.2.6. Anesthesia in Retinal Detachment Surgery
  - 2.2.7. Methods for Creating a Chorioretinal Adhesion
- 2.3. Scleral Surgery for Retinal Detachment
  - 2.3.1. Materials for Scleral Indentation
  - 2.3.2. Preparation of the RD's Surgical Process in the Clinic
  - 2.3.3. Preparing the Surgical Field
  - 2.3.4. Examination of Retinal Detachment in the Operating Theatre. Location of Tears and Their Scleral Markings
  - 2.3.5. Sealing of Retinal Tears, Positioning of the Various Devices, Locks, Silicone Sponges, etc.
  - 2.3.6. Cryotherapy or Laser Around Ruptures, Surgical Technique
  - 2.3.7. Drainage and Control of Subretinal Fluid
  - 2.3.8. Scleral Cerclage Height Adjustment and Suturing of Intraocular Implants and Injections
  - 2.3.9. Closure and End of Surgery
  - 2.3.10. Medical Treatment Accompanying the Scleral Surgical Process
- 2.4. Alternative Methods of Treatment for Retinal Detachment
  - 2.4.1. Pneumatic Retinopexy
  - 2.4.2. Lincoff Balloon or Orbital or Episcleral Balloon
  - 2.4.3. Suprachoroidal Surgery, Suprachoroidal Indentation
  - 2.4.4. Liquid–Air Exchanges in Consultation with Expanding Gases
  - 2.4.5. Vitreolysis with Nd: YAG
  - 2.4.6. Enzymatic Vitreolysis
- 2.5. Complicated Types of Retinal Detachment
  - 2.5.1. Total Retinal Detachments with Multiple Retinal Tears
  - 2.5.2. Retinal Detachments of Posterior Pole Retina Caused by Macular Holes
  - 2.5.3. Retinal Detachment Due To Giant Tears
  - 2.5.4. Proliferative Vitreoretinopathy
  - 2.5.5. Retinal Detachment Secondary to Uveitis and Retinitis
  - 2.5.6. Retinal Detachment Secondary to Choroidal Detachment
  - 2.5.7. Retinal Detachment Secondary to Retinal Coloboma
  - 2.5.8. Retinal Detachment Secondary to *Morning Glory* Syndrome
  - 2.5.9. Retinal Detachment Secondary to Retinoschisis
  - 2.5.10. Retinal Detachment Secondary to Anterior Pole Surgery
  - 2.5.11. Retinal Detachment with Major Corneal Opacity
  - 2.5.12. Retinal Detachment in the Myopic Patient



- 2.6. Vitrectomy for the Treatment of Retinal Detachment
  - 2.6.1. First Steps of Current and Past Vitrectomy
  - 2.6.2. Central and Peripheral Vitrectomy
  - 2.6.3. Use of Liquid Perfluorocarbon
  - 2.6.4. Surgical Techniques for Retinal Reapplication Depending on the Location of the Tear
  - 2.6.5. Endolaser
  - 2.6.6. Endocular Cryotherapy
  - 2.6.7. Endocular Diathermy
  - 2.6.8. Surgical Techniques of Intraocular Exchanges, Liquid-Air, Liquid-Oil Silicone
  - 2.6.9. Removal of Silicone Oil from the Anterior Chamber, Posterior Pole. Extraction of Heavy Oils
  - 2.6.10. Control of Hemorrhage During Surgery
  - 2.6.11. Membrane Clearance in Proliferative Vitreoretinopathy (PVR)
  - 2.6.12. Anterior Retinectomy
  - 2.6.13. Posterior Relaxing Retinotomy
  - 2.6.14. Other Retinal Reapplication Techniques
  - 2.6.15. Post-surgical Postural Treatment
  - 2.6.16. Pressure Changes, Airplane Flights during the Permanence of Expandable Gases in the Eye
  - 2.6.17. Expandable Gases and Anesthetic Gases
- 2.7. Complications of Retinal Detachment Surgery
  - 2.7.1. Complications Arising from Sclerotomies
  - 2.7.2. Retinal Incarceration at the Drainage Site in Scleral Surgery
  - 2.7.3. All Aspects of the Lens in Retinal Detachment Surgery
  - 2.7.4. Surgical Techniques for Mechanical Dilatation of the Pupil
  - 2.7.5. Intraoperative Complications of Retinal Detachment Surgery
  - 2.7.6. Perioperative Complications of Retinal Detachment Surgery
  - 2.7.7. Postoperative Complications of Retinal Detachment Surgery



**Module 3. Surgery for High Myopia. Surgery in Diseases of the Macula.**  
Surgical Techniques in Ocular Trauma. Latest Surgical Techniques

- 3.1. Surgery for High Myopia
  - 3.1.1. The Sclera in High Myopia
  - 3.1.2. The Peripheral Retina in the High Myopia
  - 3.1.3. Surgical Equipment Adapted to High Myopia
  - 3.1.4. Vitreomacular Traction Syndrome and Epiretinal Membrane in High Myopia
  - 3.1.5. Macular Retinoschisis
  - 3.1.6. Myopic Macular Hole
  - 3.1.7. Macular Indentation
  - 3.1.8. Intraoperative Complications in High Myopia
  - 3.1.9. Perioperative Complications in High Myopia
- 3.2. Vitrectomies for Macular Diseases
  - 3.2.1. Idiopathic Macular Holes
  - 3.2.2. Epiretinal Membranes
  - 3.2.3. Vitreomacular Traction Syndrome
  - 3.2.4. Colobomatous Fossa of the Optic Nerve
  - 3.2.5. Submacular Hemorrhage
  - 3.2.6. The Use of Tissue Plasminogen Activator in Submacular Hemorrhage Surgery
  - 3.2.7. Submacular Surgery of Neovascular Complexes
  - 3.2.8. Surgical Techniques for Subretinal Surgery
  - 3.2.9. Pigment Epithelium Cell Transplantation
  - 3.2.10. Vitrectomy in Vitreous Opacities
  - 3.2.11. Surgical Techniques to Apply Gene Therapy
- 3.3. Surgical Techniques in Ocular Trauma
  - 3.3.1. Examination of Eye Injuries in the Consultation Room
  - 3.3.2. Exploration and Primary Scleral Repair of Ocular Perforator Trauma
  - 3.3.3. Treatment of Hyphema
  - 3.3.4. Surgical Techniques Iridodialysis Repair
  - 3.3.5. Surgical Techniques for the Treatment of Traumatic Lens Dislocation or Subluxation or Traumatic Intraocular Lenses
  - 3.3.6. Surgical Techniques for Intraocular Foreign Bodies
  - 3.3.7. Penetrating and Piercing Injuries
  - 3.3.8. Traumatic Suprachoroidal Hemorrhages
  - 3.3.9. Sympathetic Ophthalmia
- 3.4. Other Retinal Surgery Techniques
  - 3.4.1. Surgical Techniques in Retinal Occlusion
  - 3.4.2. Removal of Intra-Arterial Emboli
  - 3.4.3. Terson Syndrome
  - 3.4.4. Macular Translocation
  - 3.4.5. Artificial Vision, Bionic Retinal Protheses
  - 3.4.6. Intraoperative Radiotherapy for Subretinal Neovascular Complexes
  - 3.4.7. Surgical Techniques for the Treatment of Choroidal Detachments



*A unique, key, and decisive educational experience to boost your professional development”*

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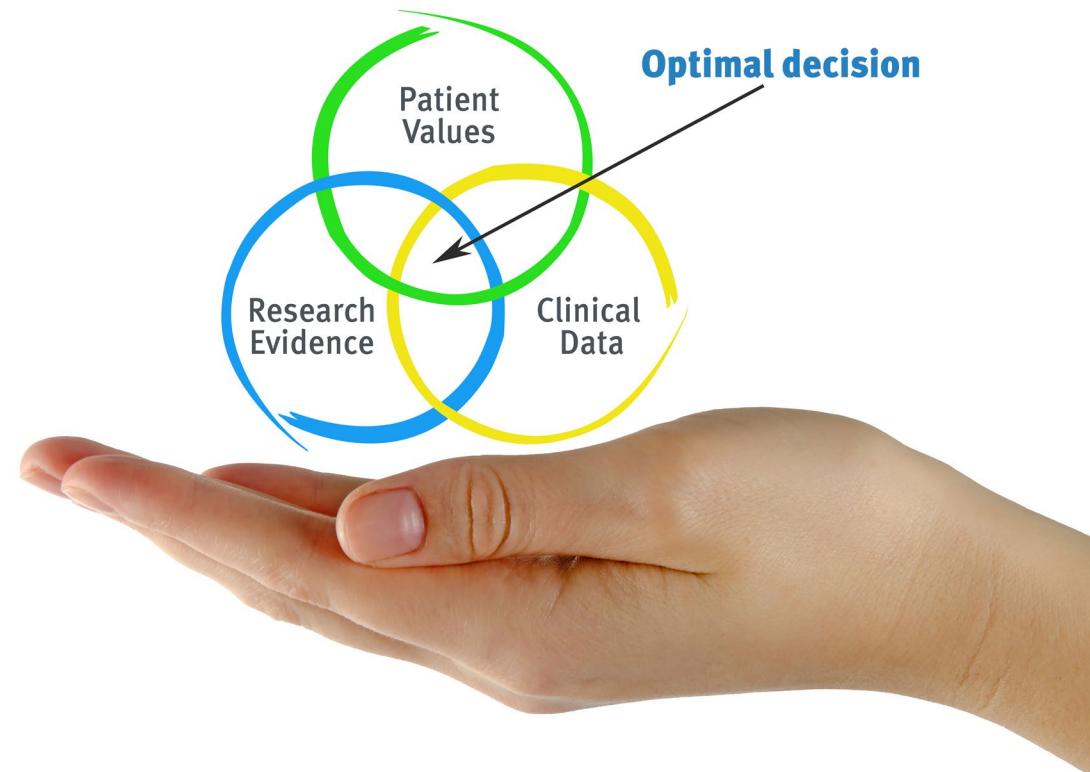
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## 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 Diploma in Macula, Retina and Vitreous Surgery guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.





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



This program will allow you to obtain your **Postgraduate Diploma in Macula, Retina and Vitreous Surgery** 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 Macula, Retina and Vitreous Surgery**

Modality: **online**

Duration: **6 months**

Accreditation: **16 ECTS**



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

online training

development language

virtual classroom

**tech** global  
university

## Postgraduate Diploma Macula, Retina and Vitreous Surgery

- » Modality: online
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- » Credits: 16 ECTS
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# Postgraduate Diploma Macula, Retina and Vitreous Surgery

