

Postgraduate Certificate

Thoracic Aorta Interventional Procedures



## Postgraduate Certificate Thoracic Aorta Interventional Procedures

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/thoracic-aorta-interventional-procedures](http://www.techtute.com/us/medicine/postgraduate-certificate/thoracic-aorta-interventional-procedures)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

The risk factors that encourage health problems in the thoracic aorta are multiple and therefore, in recent years, this disease has reached a higher incidence. In this context, physicians need to stay updated on the latest interventional trends in order to provide their patients with the best treatments. Therefore TECH has designed this program which covers different conditions such as Aortic Aneurysm, Intramural Hematoma and Penetrating Aortic Ulcers. It also addresses the procedures to treat these health problems and for this an innovative 100% online methodology is used, without airtight schedules. Likewise, the university program has an exceptional teaching staff, composed of professionals with extensive experience in this medical field.



“

*This 100% online program is supported by the disruptive Relearning system to allow you to fully update the most innovative techniques of Thoracic Aorta Interventional Procedures”*

Thoracic Aortic Aneurysms are less frequent than abdominal aneurysms and often asymptomatic, which makes it very difficult to determine their real incidence. Added to this is the complexity that, when undetected, they can grow until they rupture and generate complex emergencies for the patient. At the same time, when the diagnosis of this type of lesion has been confirmed, physicians must select the therapeutic procedure to be followed according to the highest criteria. In this regard, techniques such as endovascular repair or open surgery have become some of the most effective methods.

Regardless of the selected treatment, physicians who take on these cases must have excellent specialization and master the most disruptive strategies in the field of Thoracic Aorta Interventional Procedures. That is why TECH has created this Postgraduate Certificate. The university program provides an in-depth study of the most common and effective clinical manifestations and diagnostic methods in this anatomical area. Likewise, the program refers to the methods to treat Ascending, Descending and Transverse Arch Aortic Aneurysms. Likewise, Aortic Dissection, Intramural Hematoma and Penetrating Aortic Ulcers are analyzed.

The entire academic itinerary is supported by an innovative 100% online methodology that includes disruptive methods such as the analysis of real cases. Therefore, physicians will be able to specialize by addressing practical examples and the precise protocols they would adopt in these specific situations. Moreover, they will not have to memorize the key concepts thanks to Relearning, which encourages the gradual and organic reiteration of the same. In addition, the program includes complementary materials such as explanatory videos, interactive summaries and other multimedia resources.

This **Postgraduate Certificate in Thoracic Aorta Interventional Procedures** 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 experts in Angiology and Vascular Surgery
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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



*You will synthesize the clinical manifestations of Aortic Dissection from content accessible 24 hours a day, 7 days a week”*

“

*You will master the diagnosis of Intramural Hematoma and Penetrating Aortic Ulcers thanks to the disruptive contents of this program”*

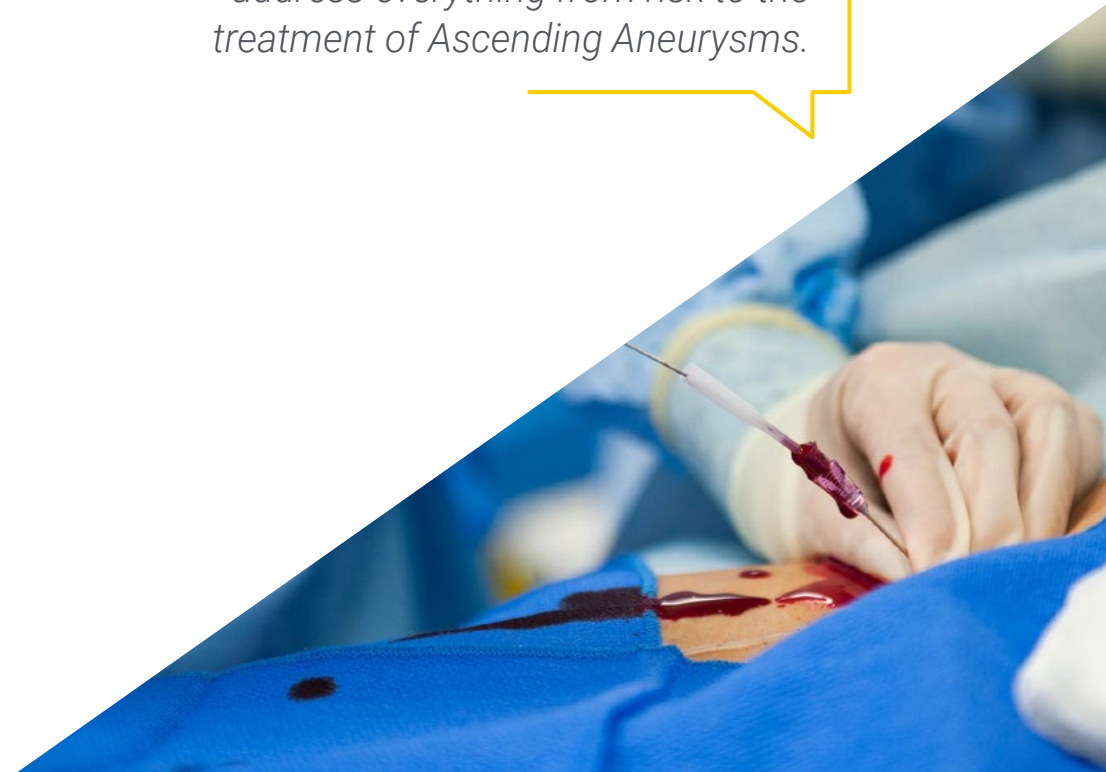
The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing program, as well as renowned specialists from leading societies and prestigious universities.

The 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 immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*TECH, the world's best digital university according to Forbes, offers you a unique methodology that fits your personal schedule and allows you to choose when and where to study.*

*During this comprehensive university program, you will address everything from risk to the treatment of Ascending Aneurysms.*



# 02 Objectives

With this Postgraduate Certificate, physicians can update their knowledge of effective techniques and treatments for aortic pathologies. From a deep understanding of Aortic Aneurysms, Dissections, Intramural Hematomas, Penetrating Ulcers, Trauma and Vasculitis, they achieve a rigorous praxis in accordance with the latest scientific evidence related to Vascular Interventional Procedures. Likewise, they incorporate competencies related to the application of Artificial Intelligence tools and therefore offer innovative assistance to their patients.







“

*Delve into the emergency management of Thoracic Aortic Trauma in this 6-week academic itinerary”*



## General Objectives

---

- ♦ Develop the technical skills necessary to accurately perform and analyze angiographic studies
- ♦ Promote an appreciation of the importance of multidisciplinary teamwork in the interpretation and management of vascular angiographic results
- ♦ Acquire skills to apply techniques such as angioplasty, Stent placement, and other minimally invasive procedures
- ♦ Determine the procedures and protocols for performing and interpreting computed tomography angiography (CTA) in the context of vascular interventional procedures



*You will understand, with this Postgraduate Certificate, the inflammatory and congenital conditions that affect the Aorta to improve intervention and follow-up strategies”*





## Specific Objectives

---

- Identify the indications for interventional thoracic aortic surgery, including Aneurysms, Dissections and other pathologies
- Review imaging techniques used in the diagnosis and follow-up of thoracic aortic disease, such as computed tomography angiography (CTA) and magnetic resonance imaging (MRI)
- Determine therapeutic options for thoracic aortic aneurysms, including aortic stent-graft placement (EVAR) and open surgery
- Explore endovascular repair techniques for aortic dissections in the thoracic aorta

# 03

# Course Management

This TECH program stands out for its teaching staff, which includes experts of great prestige and with a recognized professional trajectory. All these specialists have accumulated clinical results of excellence in the field of Angiology and Vascular Surgery, having assisted patients with various pathologies that required the latest techniques of Thoracic Aorta Interventional Procedures. Given their proven experience, these professionals are ideal to offer other specialists a complete and disruptive update such as the one designed for this.





“

*Do not miss the opportunity to expand your skills on Thoracic Aorta Interventional Procedures through expert teachers with extensive clinical and professional experience”*

## Management



### **Dr. Del Río Solá, María Lourdes**

- Chief from the Vascular Angiology and Surgery Service at the Valladolid University Clinical Hospital
- Specialist in Angiology and Vascular Surgery
- European Board in Vascular Surgery
- Academic Correspondent of the Royal Academy of Medicine and Surgery
- Full Professor at the European University Miguel de Cervantes
- Associate Professor in Health Sciences at the University of Valladolid



# 04

## Structure and Content

This Postgraduate Certificate has an exhaustive syllabus that includes the emerging therapeutic procedures for the treatment of Ascending Aortic Aneurysms. At the same time, it covers the main interventional techniques that facilitate the treatment of Intramural Hematomas, Penetrating Aortic Ulcers, Thoracic Aortic Trauma, as well as Vasculitis and Aortic Coarctation. Also, the program stands out for analyzing Artificial Intelligence tools that facilitate outcome prediction and treatment selection. In addition, this university program offers students a disruptive 100% online methodology.







“

*You will have complementary readings, videos in detail and self-assessment tests to reinforce your competencies during this academic itinerary”*

## Module 1. Thoracic Aorta Interventional Procedures

- 1.1. Interventional Procedures in Ascending Aortic Aneurysms
  - 1.1.1. Associated Risk Factors
  - 1.1.2. Clinical Manifestations and Diagnostic Methods
  - 1.1.3. Treatment and Management of Ascending Aortic Aneurysms
- 1.2. Interventional Procedures in Aortic Arch Aneurysms
  - 1.2.1. Diagnostic Evaluation and Imaging Strategies
  - 1.2.2. Therapeutic Approaches for Transverse Arc Aneurysms
  - 1.2.3. Innovations and Future Directions
- 1.3. Interventional Procedures for Descending Thoracic Aortic Aneurysms
  - 1.3.1. Aneurysms of the Descending Thoracic Aorta
  - 1.3.2. Clinical Findings and Diagnostic Imaging
  - 1.3.3. Treatment and Management of Aneurysms of the Descending Thoracic Aorta
- 1.4. Interventional Procedures in Aortic Dissection
  - 1.4.1. Clinical Manifestations and Differential Diagnosis
  - 1.4.2. Therapeutic Approach and Treatment Strategies for Aortic Dissection
  - 1.4.3. Innovations and Future Directions
- 1.5. Interventional Procedures in Intramural Hematoma
  - 1.5.1. Diagnostic Imaging and Evaluation Methods in Intramural Hematoma
  - 1.5.2. Treatment and Management of Intramural Hematoma
  - 1.5.3. Innovations and Future Directions
- 1.6. Interventional Procedures in Penetrating Aortic Ulcers
  - 1.6.1. Pathogenic Mechanisms
  - 1.6.2. Clinical Diagnosis and Radiological Evaluation
  - 1.6.3. Therapeutic Options and Surgical Considerations
- 1.7. Interventional Procedures in Trauma involving the Thoracic Aorta
  - 1.7.1. Trauma Affecting the Thoracic Aorta
  - 1.7.2. Initial Evaluation and Diagnosis of Traumatic Aortic Injuries
  - 1.7.3. Emergency Management and Therapeutic Considerations in Aortic Trauma



- 1.8. Interventional Procedures in Vasculitis
  - 1.8.1. Underlying Pathology and Inflammatory Mechanisms
  - 1.8.2. Clinical Manifestations and Diagnostic Methods
  - 1.8.3. Treatment and Management of Vasculitides Affecting the Thoracic Aorta
- 1.9. Interventional Procedures in Aortic Coarctation
  - 1.9.1. Pathophysiology and Clinical Presentation
  - 1.9.2. Diagnosis and Evaluation of Aortic Coarctation
  - 1.9.3. Treatment Strategies and Long-Term Follow-Up
- 1.10. Use of Artificial Intelligence in Thoracic Aortic Interventional Procedures
  - 1.10.1. AI Applications in Vascular Image Analysis
  - 1.10.2. Outcome Prediction and Treatment Selection
  - 1.10.3. Integration of AI in Endovascular Procedures



*Enroll now in this TECH Postgraduate Certificate and become a highly qualified specialist in Thoracic Aorta Interventional Procedures”*



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.



“

*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.

“

*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.

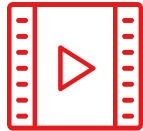
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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

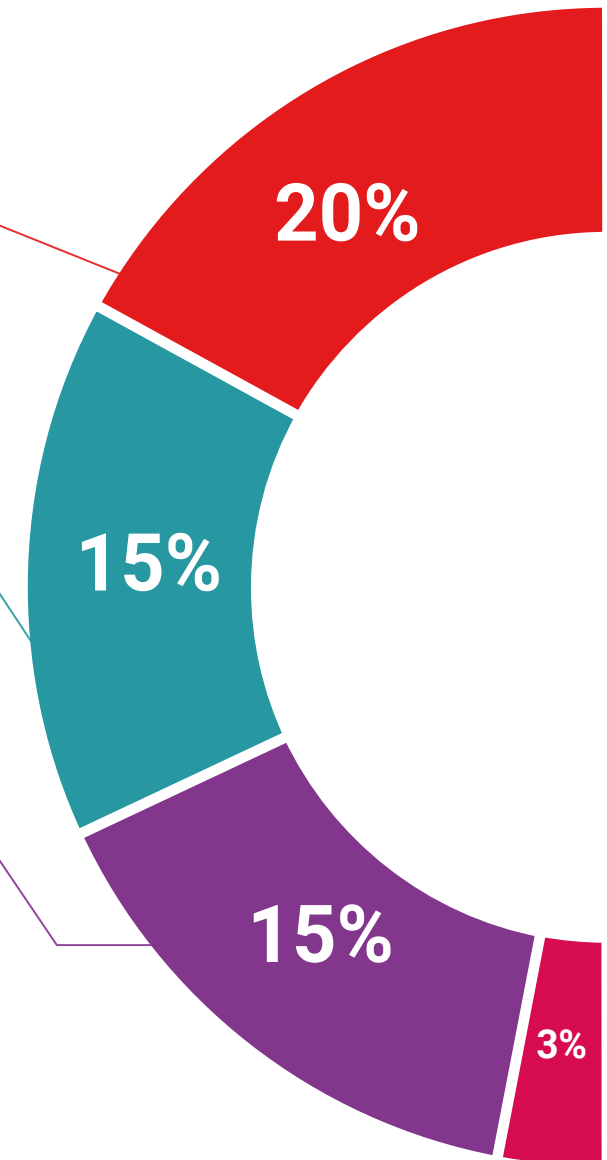
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

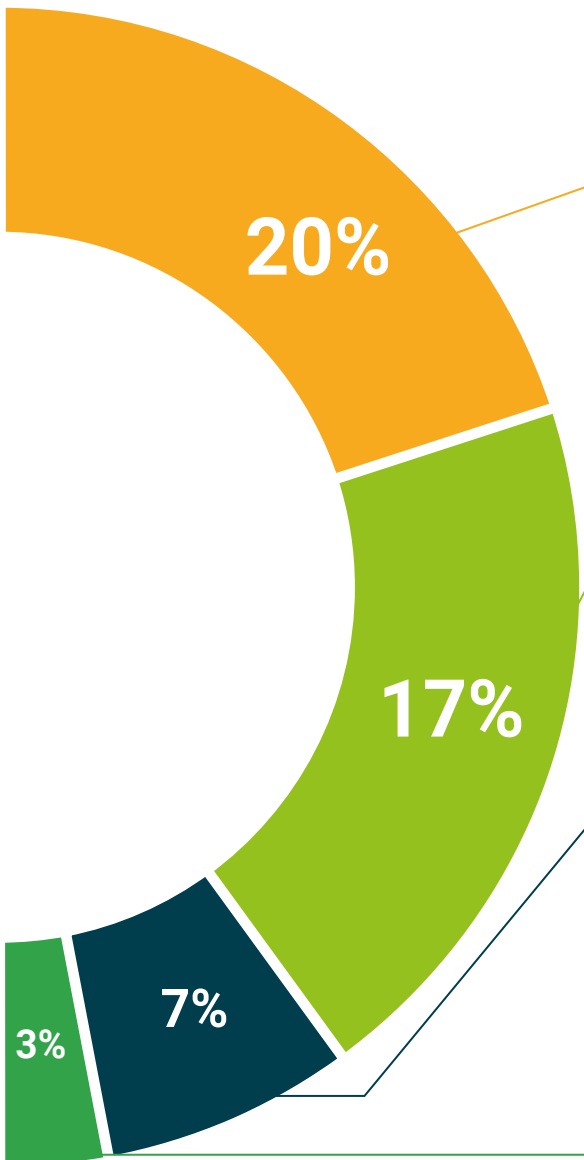
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 Thoracic Aorta Interventional Procedures guarantees, in addition to the most accurate and up-to-date knowledge, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This private qualification will allow you to obtain a **Postgraduate Certificate in Thoracic Aorta Interventional Procedures** 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: **Postgraduate Certificate in Thoracic Aorta Interventional Procedures**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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  
development language  
virtual classroom



**Postgraduate Certificate**  
Thoracic Aorta  
Interventional Procedures

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

# Postgraduate Certificate

## Thoracic Aorta Interventional Procedures

