

# Postgraduate Certificate

## Diagnostic Methods in Vascular Pathology



## Postgraduate Certificate Diagnostic Methods in Vascular Pathology

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/diagnostic-methods-vascular-pathology](http://www.techtute.com/us/medicine/postgraduate-certificate/diagnostic-methods-vascular-pathology)

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# 01

# Introduction

The early detection of vascular diseases is crucial for optimal treatment to help improve the patient's quality of life. For this reason, the diagnostic methods used in this field have undergone remarkable perfection, offering accurate results that facilitate the approach to the conditions. Therefore, physicians are compelled to be aware of these advances in order to ensure that they are up to date in their professional practice. That is why TECH has designed this program, through which the student will delve into the latest diagnostic imaging techniques or vascular functional tests that allow the detection of these pathologies. Also, you will be up-to-date by means of an online methodology, which will enable you to study without having to travel to a study center.



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*Through this Postgraduate Certificate, you will learn the advanced diagnostic imaging techniques that allow the detection of vascular diseases"*

Radiology techniques, ultrasonography or functional vascular tests such as plethysmography or Doppler study have evolved significantly in recent years as a result of scientific advances. Thanks to the development of these diagnostic methods, the specialist obtains more accurate results, detecting vascular diseases more easily and earlier. Given the positive impact this has on their patients, specialists must identify these cutting-edge mechanisms in order to be at the medical forefront.

Given this situation, TECH has created this Postgraduate Certificate, through which the professional will have the most up to date knowledge on Diagnostic Methods in Vascular Pathology. During 6 intensive weeks of learning, you will delve into the up to date techniques of tomography and magnetic resonance imaging for the detection of diseases or the evolution of vascular functional tests. Likewise, you will identify the recent advances in vascular biopsy and endoscopy or the state-of-the-art strategies to interpret the results obtained.

Thanks to the fact that this program is developed through a completely online methodology, students will be able to perfectly combine their excellent medical update with their personal and professional responsibilities. In addition, the program is designed and taught by specialists who have extensive experience in the field of Vascular Surgery and who have held positions of responsibility in leading hospitals. Therefore, the assimilated knowledge will be fully applicable in daily practice.

This **Postgraduate Certificate in Diagnostic Methods in Vascular Pathology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in Venous 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
- ♦ 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



*Through this qualification, you will delve into the advances made in vascular biopsy and endoscopy or in the different vascular functional tests"*

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*The Postgraduate Certificate in Diagnostic Methods in Vascular Pathology is the best option to be at the forefront of this branch of medicine in a short period of time"*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Delve into the latest techniques of magnetic resonance or ultrasonography applied to vascular diseases by means of didactic resources in multimedia formats.*

*Do you wish to achieve your desired medical update without giving up your daily professional and personal responsibilities? This program has been developed for you!*



# 02 Objectives

The Postgraduate Certificate in Diagnostic Methods in Vascular Pathology has been carried out with the idea of updating the specialist in this medical field. Through this educational experience, you will be able to delve into the latest imaging techniques for the detection of these diseases or strategies for the interpretation of the results obtained. This updating will be guaranteed by the following general and specific objectives.





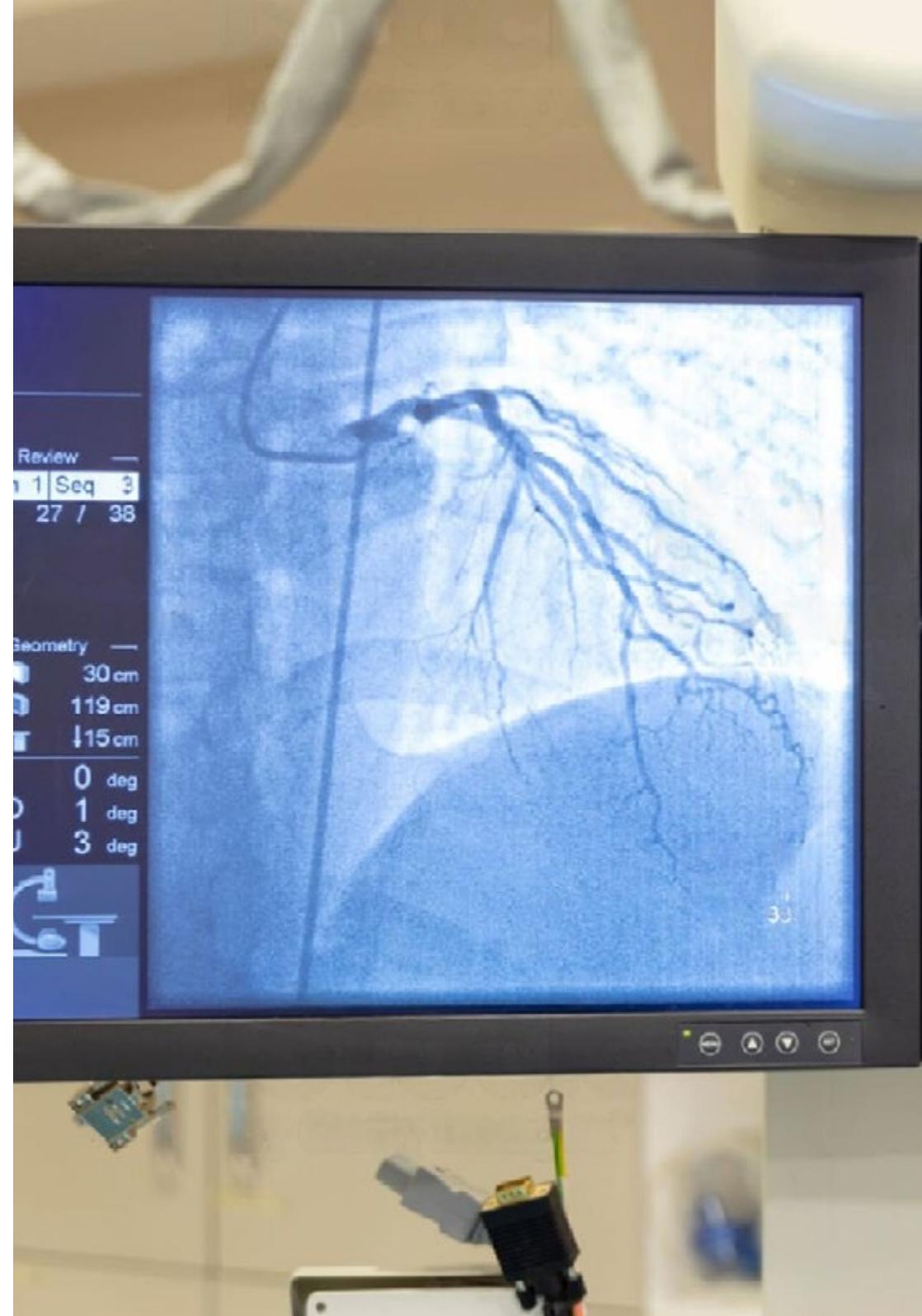
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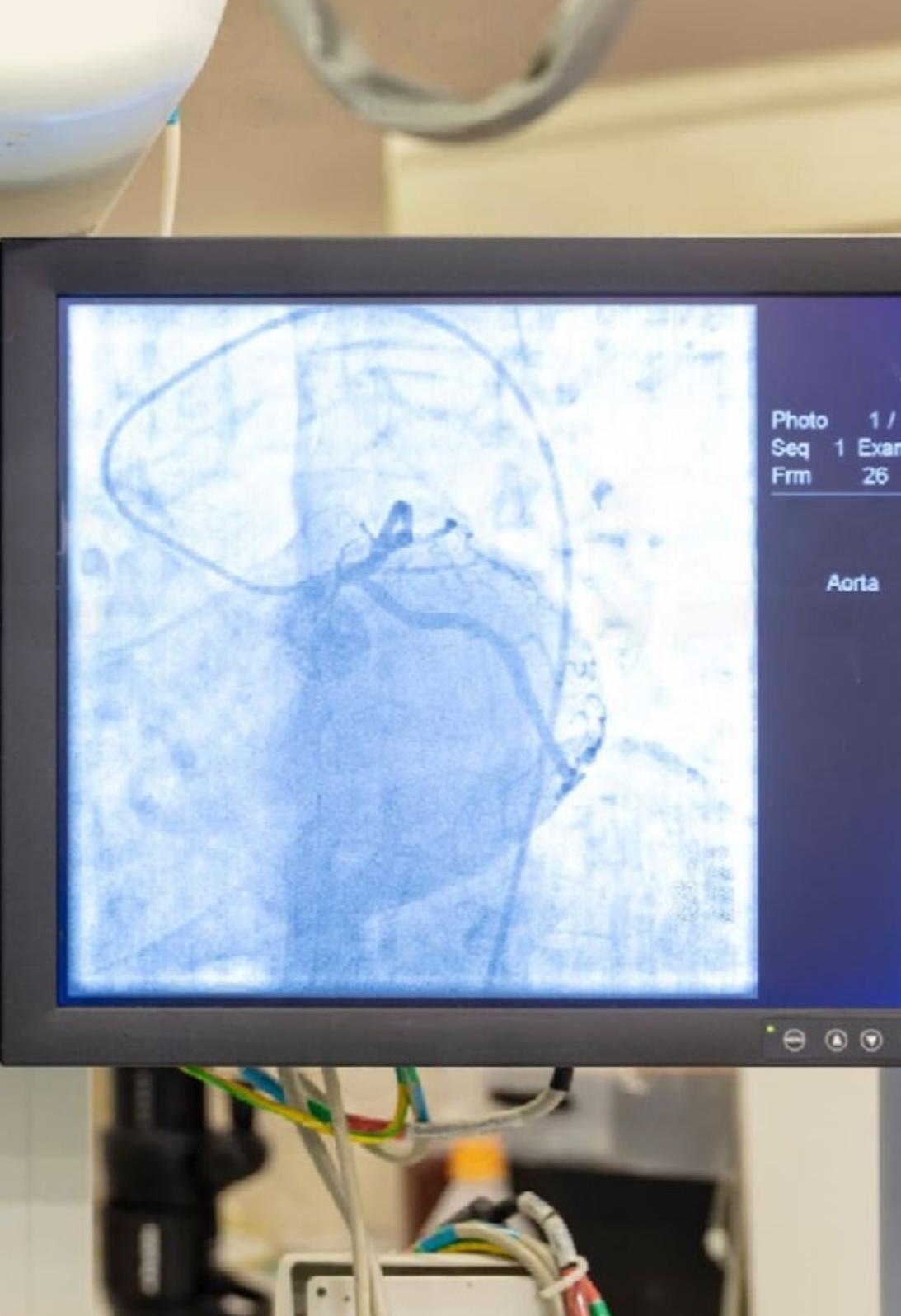
*Adopt in your daily practice the recent advances on Diagnostic Methods in Vascular Pathology”*



## General Objectives

- Learn about the structure and function of blood vessels, both arterial and venous, and the regulation of blood flow in the microcirculation
- Delve into the epidemiology and Risk Factors
- Update knowledge on the main risk factors for the development of vascular diseases and the strategies for primary and secondary prevention
- Gain in-depth understanding of the pathophysiology of vascular diseases
- Inquire into the different diagnostic methods
- Delve into the diagnostic techniques used in vascular pathology, including clinical examination and vascular semiology, imaging methods, laboratory diagnosis and study of vascular function and hemodynamics
- Explain the different research methods and advances in vascular pathology, especially those focused on vascular pathology, including the development of new drug therapies, genetics and genomics in vascular diseases, and the development of new imaging techniques for the diagnosis and follow-up of vascular diseases





## Specific Objectives

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- Delve into the semiology and clinical vascular examination for the identification of signs and symptoms of vascular diseases
- Investigate the different imaging methods used in vascular pathology, such as angiography, Doppler ultrasound, computed tomography and magnetic resonance imaging, among others
- Interpret the results of the different diagnostic imaging methods, depending on the vascular pathology in question
- Delve into laboratory diagnostic techniques for the study of vascular diseases, such as coagulation tests, hemogram and blood biochemistry



*Throughout this 6-week educational experience, you will learn updated strategies for analyzing the results obtained from imaging tests"*

# 03

# Course Management

Motivated by TECH's untiring commitment to guarantee the educational excellence of its degrees, the Postgraduate Certificate in Diagnostic Methods in Vascular Pathology has a teaching staff made up of leading specialists in the field. All these experts have developed an exquisite professional career in the field of Vascular Surgery and are actively practicing in first level hospitals. As a result, the knowledge that the student will acquire will be in tune with the advances in this field.





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*In order to provide you with the most up to date knowledge on Diagnostic Methods in Vascular Pathology, this program is taught by active specialists in this field"*

## Management



### Dr. Del Río Sola, María Lourdes

- ♦ Head of the Angiology and vascular surgery at Valladolid Clinical University Hospital
- ♦ Specialist in Angiology and Vascular Surgery
- ♦ European Board in Vascular Surger
- ♦ Permanent Correspondents of the Royal Academy of Medicine and Surgery
- ♦ Professor at Miguel de Cervantes European University
- ♦ Associate Teacher in Health Sciences, University of Valladolid

## Professors

### Dr. Cenizo Revuelta, Noelia

- ♦ Assistant Physician at the the Angiology and vascular surgery at Valladolid Clinical University Hospital
- ♦ Specialist in Angiology and Vascular Surgery(ACV)
- ♦ Tutor accredited by the University of Valladolid
- ♦ Tutor Coordinator of the LCA Teaching Unit of the Valladolid Clinical University Hospital
- ♦ Professor in charge of the subject "Medical Pathology" in the Degree of Dentistry of the European University Miguel de Cervantes (UEMC) of Valladolid
- ♦ Associate Professor at the University of Valladolid
- ♦ PhD Cum Laude and Extraordinary Award the Doctorate in Medicine and Surgery from from the University of Valladolid



# 04

# Structure and Content

The syllabus of this Postgraduate Certificate has been designed with the intention of providing the specialist with the latest advances supported by scientific evidence regarding Diagnostic Methods in Vascular Pathology. All the didactic contents of the program are available in a wide range of highly varied textual and multimedia supports. As a result, and following a 100% online methodology, the student will enjoy a completely enjoyable and individualized learning.



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*The Postgraduate Certificate in Diagnostic Methods in Vascular Pathology has a 100% online methodology that will allow you to update your knowledge without having to travel to a study center"*

## Module 1. Diagnostic Methods in Vascular Pathology

- 1.1. Importance of Diagnostic in Vascular Pathology
  - 1.1.1. Consequences of an incorrect or late diagnosis in vascular diseases
  - 1.1.2. Role of prevention and early detection in the diagnosis of vascular diseases
  - 1.1.3. Importance of follow-up and evaluation of treatment in the diagnosis of vascular diseases
- 1.2. Physical Examinations Methods
  - 1.2.1. Inspection, palpation and auscultation in vascular examination
  - 1.2.2. Signs and symptoms indicating vascular diseases in physical examination
  - 1.2.3. Importance of physical examination in the differential diagnosis of vascular diseases
- 1.3. Diagnostic Imaging methods: radiology, ultrasonography, tomography, magnetic resonance imaging
  - 1.3.1. Basic principles of each Diagnostic imaging method
  - 1.3.2. Indications and Contraindications of each Diagnostic imaging method
  - 1.3.3. Advantages and limitations of each Diagnostic imaging method in Vascular Pathology
- 1.4. Vascular functional tests: ankle-brachial indices, plethysmography, Doppler study
  - 1.4.1. Basic principles of each vascular functional test
  - 1.4.2. Indications and Contraindications of each vascular functional test
  - 1.4.3. Interpretation of the results of each vascular functional test in Vascular Pathology
- 1.5. Angiography and Arteriography
  - 1.5.1. Indications and Contraindications of Angiography and arteriography
  - 1.5.2. Basic Principles of Angiography and arteriography
  - 1.5.3. Interpretation of the results of Angiography and arteriography in Vascular Pathology
- 1.6. Vascular endoscopy
  - 1.6.1. Indications and Contraindications of vascular endoscopy
  - 1.6.2. Basic principals of vascular endoscopy
  - 1.6.3. Interpretation of the results of each vascular endoscopy in Vascular Pathology





- 1.7. Vascular Biopsies
  - 1.7.1. Indications and Contraindications of vascular Biopsies
  - 1.7.2. Basic principals of vascular Biopsies
  - 1.7.3. Interpretation of the results of each vascular Biopsies in Vascular Pathology
- 1.8. Interpretation of diagnostic test results
  - 1.8.1. Criteria for the Interpretation of diagnostic test results
  - 1.8.2. Importance of clinical correlation in the interpretation of diagnostic test results
  - 1.8.3. Common errors in the interpretation of diagnostic test results in Vascular Pathology
- 1.9. Role of Clinical Assessment in the Diagnoses
  - 1.9.1. Importance of Medical History in the diagnosis of vascular diseases
  - 1.9.2. Role of prevention and early detection in the diagnosis of vascular diseases
  - 1.9.3. Interpretation of diagnostic test results in the Clinical Context
- 1.10. Differential Diagnosis of Vascular Diseases
  - 1.10.1. Clinical and radiologic differences between common vascular diseases
  - 1.10.2. Criteria for differential diagnosis between vascular diseases
  - 1.10.3. Importance of comprehensive patient evaluation in the differential diagnosis of diseases

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*The teaching materials of this program, elaborated by these specialists, have contents that are completely applicable to your professional experiences”*

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 Diagnostic Methods in Vascular Pathology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Diagnostic Methods in Vascular Pathology** 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.

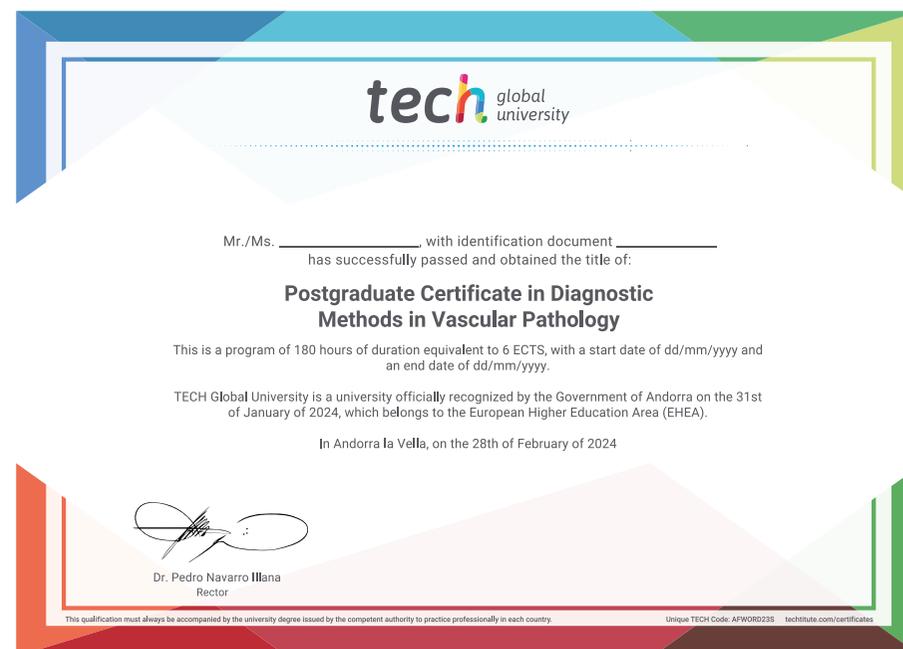
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Diagnostic Methods in Vascular Pathology**

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.

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