

# Postgraduate Certificate

## Vascular Ultrasound for Primary Care





## Postgraduate Certificate Vascular Ultrasound for Primary Care

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/in/medicine/postgraduate-certificate/vascular-ultrasound-primary-care](http://www.techtute.com/in/medicine/postgraduate-certificate/vascular-ultrasound-primary-care)

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01

# Introduction

The introduction of ultrasound scanners in Primary Care Centers has multiplied in recent years, leading different organizations to demand more preparation for a large number of family physicians in basic and advanced levels of ultrasound practice.





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*Hone your skills in Vascular Ultrasound thanks to the exclusive content offered in this comprehensive course”*

In the last 50 years, ultrasound has made significant contributions to advances in medical care, becoming an essential tool in the physical examination of patients. As such, it has become a widely used and valuable tool for guiding diagnostic and therapeutic interventions.

Vascular Ultrasound heavily relies on the operator and the method of use, so, numerous studies have shown the need and desire for specialists to possess regulated knowledge in the practice.

This Postgraduate Certificate offers students the opportunity to take an academic program that brings together the most advanced and in-depth knowledge of Vascular Ultrasound for Primary Care, where a group of professors of high scientific standing and extensive international experience provide the most complete and up-to-date information on the use of ultrasound as a complement to physical examinations.

It endorses the latest advances in ultrasound with a robust and didactic teaching program, which positions it as a product of the highest scientific rigor aimed at health professionals at the international level. Moreover, the program is based on a multidisciplinary approach to the subjects it comprises, which allows for education and professional development in different areas.

This **Postgraduate Certificate in Vascular Ultrasound for Primary Care** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ◆ Numerous clinical cases presented by ultrasound experts
- ◆ 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
- ◆ New diagnostic-therapeutic developments on evaluation, diagnosis, and intervention in problems or disorders that can be addressed with ultrasound
- ◆ It contains practical exercises where the process of self-evaluation can be carried out to improve learning
- ◆ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ◆ Special emphasis on evidence-based medicine and research methodologies in ultrasound processes
- ◆ Content that is accessible from any fixed or portable device with an Internet connection
- ◆ All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments



*You will have access to the academic syllabus and multimedia contents designed by prestigious experts in the field"*

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*You will have at your disposal the best teaching staff of specialists, who will guide you throughout the learning process”*

The teaching staff is made up of prestigious and renowned professionals who have extensive experience in healthcare, teaching, and research in various countries, and who contribute their professional expertise to this Postgraduate Certificate.

The methodological design, developed by a multidisciplinary team of e-Learning experts, integrates the latest advances in educational technology to create numerous multimedia tools that allow professionals to solve real-life situations in their daily practice. Our students will be able to advance by both acquiring knowledge and developing new skills for their future professional performance.

The contents generated for this Postgraduate Certificate, as well as the videos, self-exams, clinical cases, and modular exams, have been thoroughly reviewed, updated, and integrated by the professors and the team of experts that make up the course working group, to gradually and educationally facilitate a learning process that allows for the objectives of the teaching program to be achieved.

*This prestigious program has been designed following the fundamentals of the e-Learning methodology, which will allow you to assimilate the content more easily and efficiently.*

*As it is 100% online, you will be able to update your knowledge on the advances in ultrasound diagnostics, in a practical way and adapted to your needs.*



# 02 Objectives

The main objective of this Postgraduate Certificate is to acquire the most up-to-date and innovative scientific knowledge in this diagnostic area, which will allow students to develop the skills that will turn their daily clinical practice into a benchmark of the best standards based on the available scientific evidence, in a critical, innovative, multidisciplinary and integrative sense.





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*At the end of this Postgraduate Certificate, you will have the skills and knowledge necessary to use ultrasound in your daily medical practice”*



## General objectives

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- ◆ Acquire the knowledge required to use ultrasound to manage routine situations of its use in medical care
- ◆ Apply the skills acquired while performing the duties of an ultrasound specialist
- ◆ Use the latest clinical developments in the daily practice of a medical professional





### Specific objectives

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- ◆ Identify vascular problems from ultrasound examinations
- ◆ Identify coagulation problems and vein clogging via diagnostic imaging



*Knowledge and professional growth that will propel you towards greater competitiveness in the labor market”*

03

# Course Management

The program's teaching staff includes leading specialists in clinical ultrasound and other related areas, who bring their years of work experience to this training. Additionally, other recognized specialists participate in its design and preparation, which culminates the program with an interdisciplinary touch.



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*You will have real clinical cases that will help you to develop your skills with the management of ultrasound machine"*

## Management



### Dr. Fumadó Queral, Josep

- ♦ Family Physician, Els Muntells Primary Care Center (Amposta, Tarragona)
- ♦ Graduate in Clinical Ultrasound and Trainer Training, University of Montpellier-Nîmes, France
- ♦ Lecturer at the Associació Mediterrània of General Medicine
- ♦ Teacher at the Spanish School of Ultrasound of the Spanish Society of General and Family Physicians (SEMG)
- ♦ Honorary Member of the Canary Society of Ultrasound (SOCANECO) and Professor of its Annual Symposium
- ♦ Lecturer on the Master's Degree in Clinical Ultrasound for Emergencies and Critical Care at the CEU Cardenal Herrera University



### Dr. Pérez Morales, Luis Miguel

- ♦ Family Physician, Primary Care Center of Arucas - Gran Canaria, Canary Islands
- ♦ Diploma in Ultrasound in Primary Care University Rovira i Virgili. Catalan Institute of Health
- ♦ Expert in Thoracic Ultrasound. University of Barcelona
- ♦ Expert in Abdominal and Musculoskeletal Clinical Ultrasound for Emergency and Critical Care. CEU Cardenal Herrera University
- ♦ President and Professor of the Canary Society of Ultrasound (SOCANECO) and Director of its Annual Symposium
- ♦ Professor on the Master's Degree in Clinical Ultrasound for Emergency and Critical Care at the CEU Cardenal Herrera University



## Professors

### Dr. De Varona Frolov, Serguei

- ◆ Angiology and Vascular Surgery Specialist. General University Hospital of Gran Canaria Dr. Negrín. Las Palmas de Gran Canaria (Canary Islands)

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*Update your knowledge with this program in Vascular Ultrasound for Primary Care”*

04

# Structure and Content

The structure of the contents has been designed by a team of professionals from leading hospitals, who have taken into account the need to update the content that will be taught, as well as the use of quality teaching through new educational technologies.





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*This program will help you detect and intervene in diseases that can be diagnosed using ultrasound”*

## Module 1. Clinical Vascular Ultrasound

- 1.1. Vascular Ultrasound
  - 1.1.1. Description and Applications
  - 1.1.2. Technical Requirements
  - 1.1.3. Procedure
  - 1.1.4. Interpretation of Results: Risks and Benefits
  - 1.1.5. Limitations
- 1.2. Doppler
  - 1.2.1. Fundamentals
  - 1.2.2. Applications
  - 1.2.3. Types of Echo-Doppler
  - 1.2.4. Color Doppler
  - 1.2.5. Power Doppler
  - 1.2.6. Dynamic Doppler
- 1.3. Normal Ultrasound of the Venous System
  - 1.3.1. Anatomy Recap: Venous System of the Upper Extremities
  - 1.3.2. Anatomy Recap: Venous System of the Lower Extremities
  - 1.3.3. Normal Physiology
  - 1.3.4. Regions of Interest
  - 1.3.5. Functional Tests
  - 1.3.6. Report. Vocabulary
- 1.4. Upper Extremity Chronic Venous Disease
  - 1.4.1. Definition
  - 1.4.2. CEAP Classification
  - 1.4.3. Morphological Criteria
  - 1.4.4. Examination Technique
  - 1.4.5. Diagnostic Manoeuvres
  - 1.4.6. Type of Report





- 1.5. Acute/Subacute Vascular Thrombosis of the Upper Extremities
  - 1.5.1. Anatomy Recap
  - 1.5.2. Manifestations of Vascular Thrombosis of the Upper Extremities
  - 1.5.3. Ultrasound Characteristics
  - 1.5.4. Examination Technique
  - 1.5.5. Diagnostic Manoeuvres
  - 1.5.6. Technical Limitations
- 1.6. Acute/Subacute Vascular Thrombosis of the Lower Extremities
  - 1.6.1. Description
  - 1.6.2. Manifestations of Vascular Thrombosis of the Lower Extremities
  - 1.6.3. Ultrasound Characteristics
  - 1.6.4. Examination Technique
  - 1.6.5. Differential Diagnosis
  - 1.6.6. Vascular Report



*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. Gervas, 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 relearn). 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 Vascular Ultrasound for Primary Care guarantees you, 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 degree  
without travel or laborious paperwork”*

This **Postgraduate Certificate in Vascular Ultrasound for Primary Care** contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate 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 Vascular Ultrasound for Primary Care**

Official N° of hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate 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 language  
virtual classroom



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Vascular Ultrasound  
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- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

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