

Postgraduate Certificate

Primary Care Vascular Ultrasound for Nursing



Postgraduate Certificate Primary Care Vascular Ultrasound for Nursing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 4 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/nursing/postgraduate-certificate/primary-care-vascular-ultrasound-nursing

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01

Introduction

In Vascular Ultrasound, there is a great dependence on the operator and the method of performance, and numerous studies have shown the need and desire for regulated training for the specialists who practice it. It is essential for nursing professionals to be updated on the latest advances in vascular ultrasound.

With this high-level program, imparted by professionals in the sector, students will learn the latest techniques and innovations in ultrasound.





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Nurses with extensive knowledge of clinical ultrasound will be better prepared to deal with certain situations in the healthcare setting”

In recent years, ultrasound has become an essential tool for health care, since it allows health professionals to establish preliminary diagnoses that facilitate the filtering of referrals for complementary explorations. Ultrasound is a safe, fast, reliable, innocuous and non-invasive test, well tolerated by patients, relatively low cost, and which has evolved into new, smaller and more accessible devices.

Now, they have become a popular and valuable tool in guiding diagnostic and therapeutic interventions. They have also helped to increase the potential of Clinical Ultrasound, achieving a notable increase in its applications.

Primary care is undoubtedly one of the areas where Clinical Ultrasound is most widely used. Nursing professionals can benefit from Clinical Ultrasound to favorably influence diagnosing and treating different pathologies, improving patient safety, reducing waiting times and possible errors.

With this Postgraduate Certificate, students have the opportunity to take a teaching program that brings together the most advanced and in-depth knowledge of Primary Care Vascular Ultrasound for Nursing, where a group of professors of high scientific standing and extensive international experience offers you the most complete and updated 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 at international level, aimed at health professionals. In addition, the program is based on a multidisciplinary approach to its subjects, which allows training and professional development in different areas:

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

- ♦ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and healthcare training on those disciplines that are essential to professional practice
- ♦ Numerous clinical cases presented by ultrasound experts
- ♦ 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 self-evaluation process can be carried out to improve learning
- ♦ An algorithm-based interactive learning system to aid decision-making in the clinical situations presented throughout the course
- ♦ Special emphasis on evidence-based nursing and research methodologies in ultrasound procedures
- ♦ 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



We put at your disposal the most complete training, from the hand of the main professionals in the field, to achieve the objectives of a quality praxis that every nurse should pursue"

“

As it is 100% online, you will update your knowledge of the advances in ultrasound diagnostics in a practical way adapted to your needs”

Its teaching staff is made up of prestigious and renowned professionals, with extensive experience in healthcare, teaching, and research in various countries, who contribute their expertise to this course

The methodological design of this program, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology in order to create numerous multimedia tools that allow the professional to solve real-life situations in their daily practice. These will enable you to advance by both acquiring knowledge and developing new skills in your future professional work.

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, in order 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, allowing you to assimilate the content more easily and efficiently.

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



02 Objectives

The main objective of this Postgraduate Certificate is to acquire the most updated 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 bastion of the best standards based on the available scientific evidence, in a critical, innovative, multidisciplinary and integrative sense.



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Our goal is to offer our students the most complete training on the market so that they are able to excel and broaden their knowledge and, therefore, become more efficient in their profession"



General Objective

- Acquire the necessary knowledge in the use of ultrasound, in order to manage the routine situations of their practical use in healthcare
- Apply the skills acquired while performing the duties of an ultrasound specialist
- Use the latest clinical developments in the day-to-day work of a Nursing professional



Make the most of the opportunity and take the step to get up to date on the latest developments in Primary Care Clinical Ultrasound for Nursing”





Specific Objectives

- ◆ Optimize ultrasound imaging through in-depth knowledge of the physical principles of ultrasound and the controls and operation of ultrasound scanners
- ◆ Master the basic and advanced procedures of Ultrasound, both at diagnostic and therapeutic level
- ◆ Determine the indications and limitations of ultrasound and its application in the most common clinical situations
- ◆ Predict the results of invasive diagnostic procedures non-invasively by using ultrasound, with the possibility of replacing them
- ◆ Guide invasive therapeutic procedures to minimize their risks
- ◆ Understand how to extend the concept of ultrasound to healthcare, research, and academic environments

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 means that the program is developed in an interdisciplinary manner.





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

International Guest Director

Dr. Lauren Ann J. Selame is a recognized professional in the field of **Medicine**, specializing in **Clinical Ultrasound**. Her expertise focuses on the **application of ultrasound in emergency medical, diagnostic imaging, simulation and public health**. With a deep interest in **procedural competence** and in the development of **advanced techniques** to detect various disorders, she has contributed significantly to the use of **Anatomical Ultrasound** to improve response times and accuracy in emergency treatments.

Throughout his career, he has played key roles in prestigious institutions. At **Brigham Women's Hospital**, recognized among the best hospitals in the world by Newsweek magazine, she has been **Director of Ultrasound Education in Emergency Medicine**, in addition to serving as an emergency physician. Her experience also includes her time at **Massachusetts General Hospital** as an Emergency Ultrasound Assistant, and at **Thomas Jefferson Hospital**, where she was a **resident in Emergency Medicine**, after training at the Sidney Kimmel School of Medicine of Thomas Jefferson University.

At the international level, she is noted for her contributions, especially in **Emergency Medicine**. She has worked in some of the most prestigious healthcare centers in the United States, which has allowed her to hone her skills and bring significant advances to the medical community. Her work has earned her a reputation for her expertise in **diagnostic ultrasound**, and she is a reference in the use of this **technology in emergencies**.

As a researcher associated with university institutions, she has written **numerous scientific articles** on its emphasis, addressing both its application in critical situations and its advances in medical diagnosis. Her publications are consulted by professionals worldwide, consolidating her role as one of the most influential voices in the field of **clinical ultrasound**.



Dr. Selame, Lauren Ann J.

- Director of Ultrasound in Emergency Medicine Brigham Women's Hospital, Boston, United States
- Emergency Medicine Physician Specialist at Brigham Women's Hospital
- Emergency Ultrasound Physician Specialist at Massachusetts General Hospital, Massachusetts
- Resident Physician in Emergency Medicine at Thomas Jefferson University Hospital
- Research Assistant at the Perelman School of Medicine, University of Pennsylvania
- M.D., Thomas Jefferson University
- Medical Degree, Sidney Kimmel School of Medicine at the Thomas Jefferson University

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

Management



Dr. Fumadó Queral, Josep

- ♦ Family physician at Els Muntells Primary Care Center (Ampostà, Tarragona)
- ♦ Graduate in Clinical Ultrasound and Training of Trainers, 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, CEU Cardenal Herrera University



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- ♦ Family physician at the 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
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- ♦ President and Professor of the Canary Society of Ultrasound (SOCANECO) and Director of its Annual Symposium
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- ◆ Radiodiagnosis Specialist
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- ◆ Professor on the Specialist Degree in Clinical Ultrasound for Family Physicians, University of Barcelona

Professors

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- ◆ Family Physician, Schamann Health Center

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

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 to 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 Interpreting 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
 - 1.4.2. 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 Features
 - 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 Features
 - 1.6.4. Examination Technique
 - 1.6.5. Differential Diagnosis
 - 1.6.6. Vascular Report
- 1.7. Ultrasound of the Supra-Aortic Trunks
 - 1.7.1. Sonoanatomy
 - 1.7.2. Scanning Protocol
 - 1.7.3. Extracranial Carotid Pathology
 - 1.7.4. Vertebral Pathology and Subclavian Artery Steal Syndrome
- 1.8. Ultrasound of the Major Vessels
 - 1.8.1. Abdominal Aortic Disease
 - 1.8.2. Vena Cava Pathology
 - 1.8.3. Pathology of Celiac Trunk, Hepatic Artery, and Splenic Artery.
 - 1.8.4. Aortomesenteric Clamp Pathology



“

Take the opportunity to learn about the latest advances in this area in order to apply it to your daily practice”

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 Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



The nurse will learn through real cases and by solving 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 we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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.

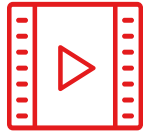
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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 really 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.



Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, 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 them as many times as you want.



Interactive Summaries

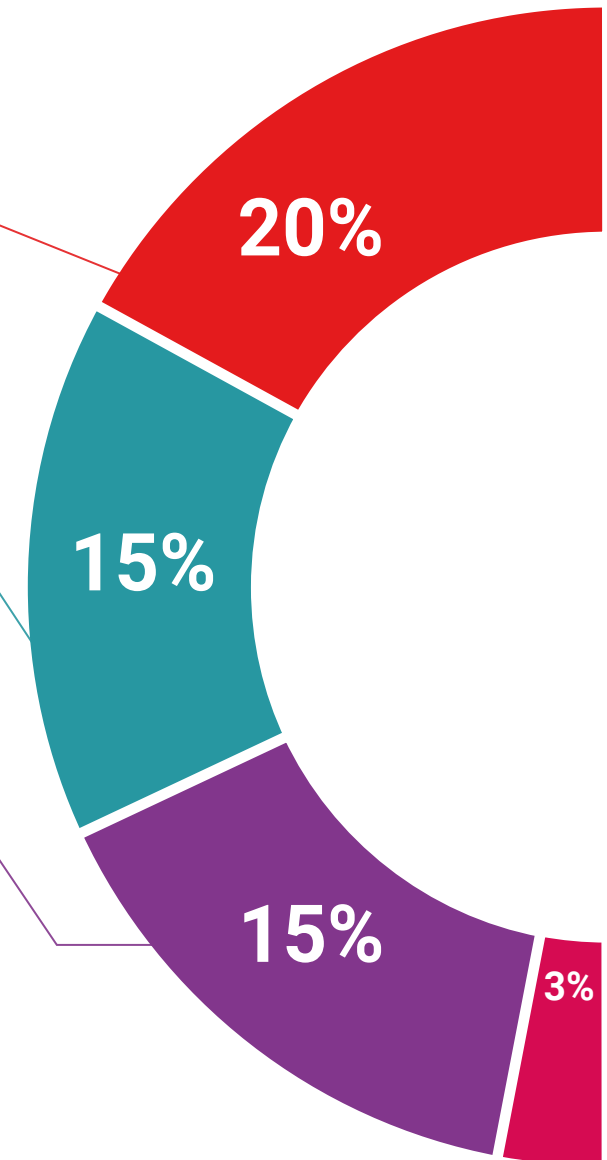
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

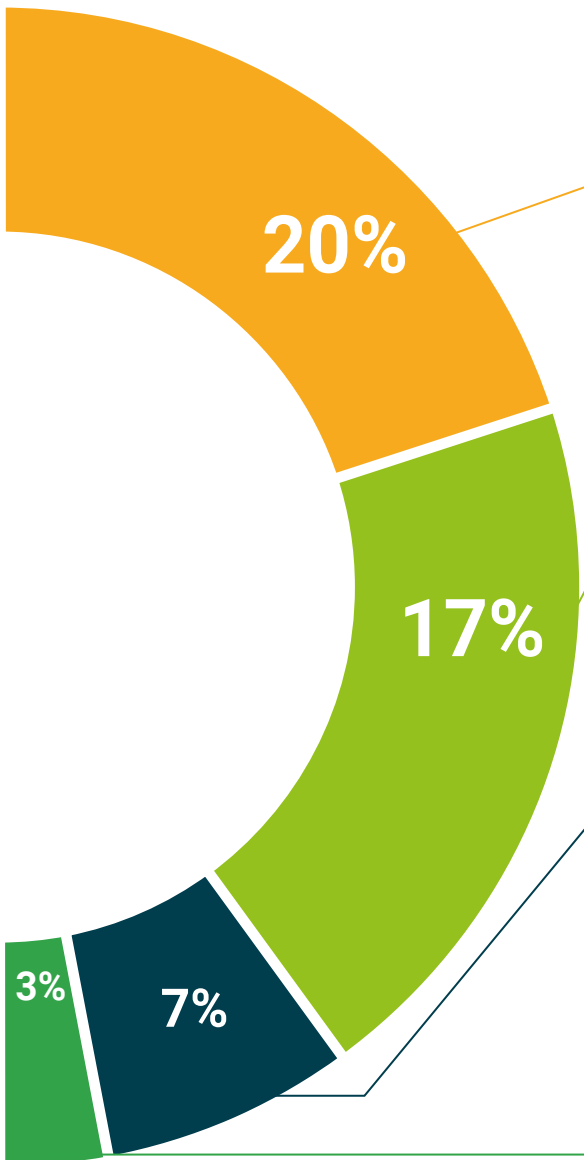
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 suggesting that observing third-party experts can be useful.
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 Primary Care Vascular Ultrasound for Nursing 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 private qualification will allow you to obtain a **Postgraduate Certificate in Primary Care Vascular Ultrasound for Nursing** 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.

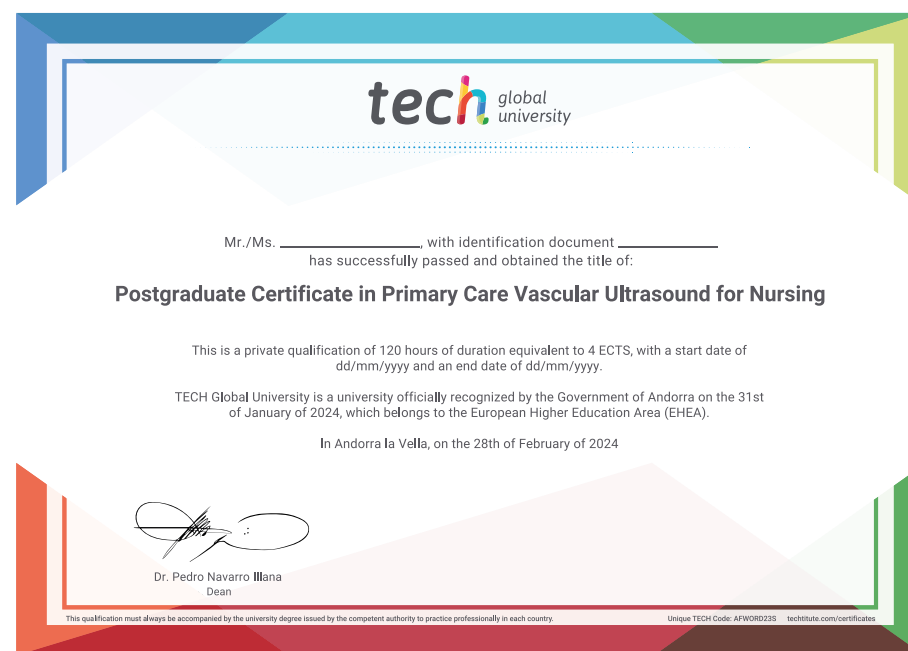
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Primary Care Vascular Ultrasound for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **4 ECTS**



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



Postgraduate Certificate
Primary Care Vascular
Ultrasound for Nursing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 4 ECTS
- » Schedule: at your own pace
- » Exams: online

Postgraduate Certificate
Primary Care Vascular
Ultrasound for Nursing