

Postgraduate Diploma Thoracic and Vascular Ultrasound for Nursing





Postgraduate Diploma Thoracic and Vascular Ultrasound for Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-thoracic-vascular-ultrasound-nursing

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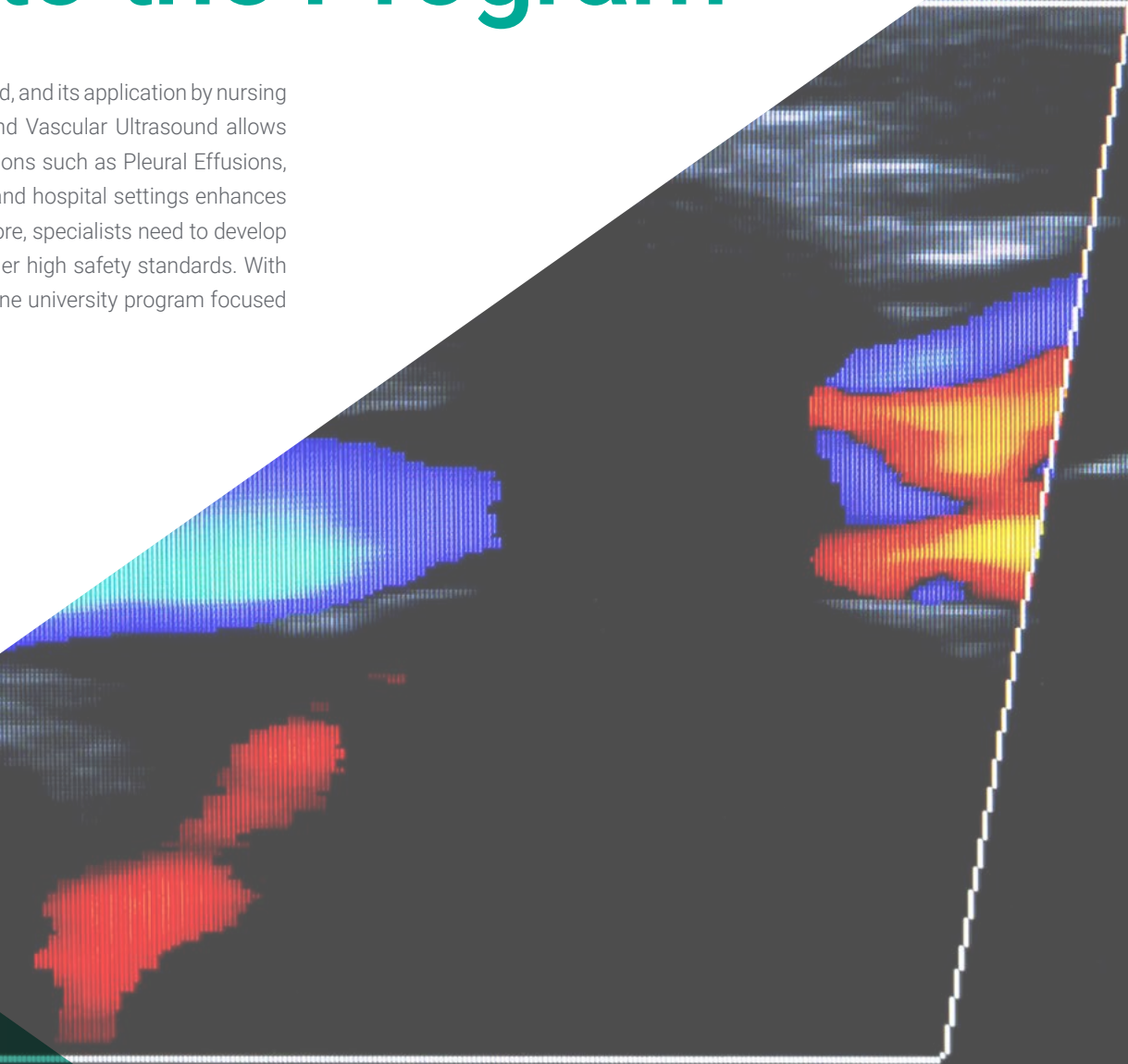
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01

Introduction to the Program

Ultrasound has become an essential diagnostic tool in the clinical field, and its application by nursing professionals is continuously expanding. In particular, Thoracic and Vascular Ultrasound allows for quick, non-invasive, and accurate assessment of critical conditions such as Pleural Effusions, Pneumothorax, or Vascular Access. Its use in both Primary Care and hospital settings enhances the safety of procedures and streamlines decision-making. Therefore, specialists need to develop advanced competencies to handle this tool with precision and under high safety standards. With this in mind, TECH Global University offers an innovative 100% online university program focused on the use of cutting-edge ultrasound equipment.



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Through this fully online Postgraduate Diploma, you will master the most innovative techniques for performing ultrasound-guided procedures using Thoracic and Vascular Ultrasound”

Thoracic and Vascular Ultrasound represents a growing tool in nursing practice. According to the World Health Organization, the use of ultrasound by experts has increased by 38% in the last decade, particularly in procedures such as venous cannulation and pulmonary evaluation. Additionally, its implementation has reduced waiting times for complex vascular access by 60%. This underscores the importance of professionals staying at the forefront of the most modern approaches to using this instrument optimally in their daily practice.

With this in mind, TECH Global University presents a groundbreaking program in Thoracic and Vascular Ultrasound for Nursing. Designed by leading experts in the field, the academic curriculum will delve into topics ranging from the physical principles of ultrasound and its interaction with tissues to the most sophisticated ultrasound modes. The syllabus will also focus on using ultrasound tools to obtain high-resolution images of regions such as the skull, salivary glands, and even the bony thoracic cavity. Additionally, the teaching materials will provide various strategies for interpreting blood flow using color, spectral, and energy Doppler, enabling nurses to rigorously identify Hemodynamic Alterations. As a result, graduates will be highly trained to perform thoracic and vascular examinations with clinical rigor, contributing to more efficient patient care.

Regarding methodology, this academic offering follows the disruptive Relearning system, promoting a progressive and natural knowledge update. Nurses will only need a device with internet access to enter the Virtual Campus and set their own schedules.

Furthermore, the curriculum will include comprehensive Masterclasses led by a renowned International Guest Director.

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

- ♦ The development of practical case studies presented by experts in Medicine
- ♦ 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 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



A prestigious International Guest Director will deliver groundbreaking Masterclasses on the latest trends in Thoracic and Vascular Ultrasound”

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Take advantage of all the benefits of the Relearning methodology, which will allow you to organize your time and pace of study, adapting to your schedule”

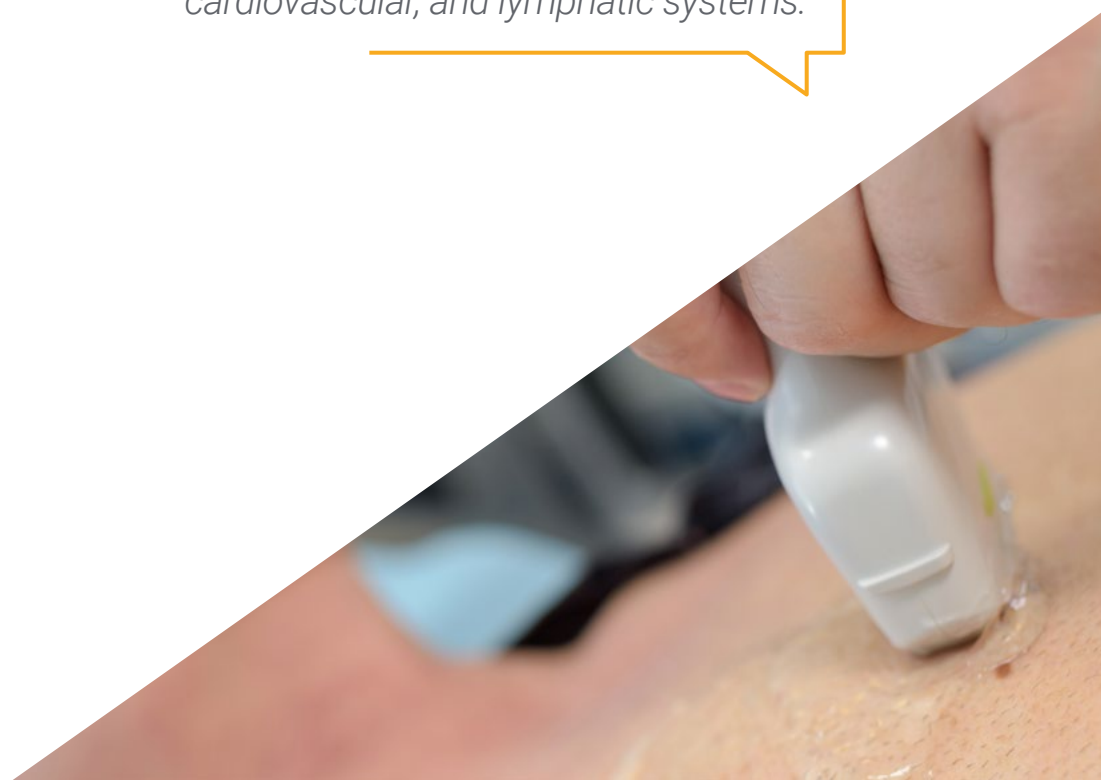
The program includes a teaching team made up of professionals from the field of Thoracic and Vascular Ultrasound for Nursing, who bring their practical experience into the curriculum, along with recognized specialists from leading societies and prestigious universities.

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 an immersive learning experience designed to prepare for real-life situations.

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

You will gain a solid understanding of the physical principles of ultrasound, as well as its application in Thoracic and Vascular assessments.

You will accurately interpret various ultrasound images related to the respiratory, cardiovascular, and lymphatic systems.



02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.



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Study at the largest online university in the world and ensure your professional success. The future begins at TECH”

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

Forbes
The best online university in the world

The most complete
syllabus

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistuba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

TOP
international faculty

The most effective methodology

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

World's No.1
The World's largest online university

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

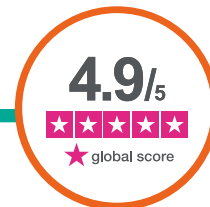
Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



03 Syllabus

The educational materials for this Postgraduate Diploma have been designed by specialists in Clinical Ultrasound, with a comprehensive and practical approach for Nursing. As a result, the academic syllabus delves into the physical principles of ultrasound, image generation, and the advanced use of Doppler. Additionally, the syllabus thoroughly covers Ultrasound applied to the thorax, head, neck, and vascular system, enabling the professional to interpret images, identify common pathologies, and perform cutting-edge ultrasound-guided procedures.





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You will explore the execution of ultrasound-guided interventions such as vascular cannulation, pleural effusion detection, and blood flow evaluation”

Module 1. Ultrasound Imaging

- 1.1. Physical Principles
 - 1.1.1. Sound and Ultrasound
 - 1.1.2. The Nature of Sound
 - 1.1.3. Interaction of Sound with Matter
 - 1.1.4. The Concept of Ultrasound
 - 1.1.5. Ultrasound Safety
- 1.2. Ultrasound Sequence
 - 1.2.1. Ultrasound Emission
 - 1.2.2. Tissue Interaction
 - 1.2.3. Echo Formation
 - 1.2.4. Ultrasound Reception
 - 1.2.5. Ultrasound Image Generation
- 1.3. Ultrasound Modes
 - 1.3.1. A-Mode and M-Mode
 - 1.3.2. B-Mode
 - 1.3.3. Doppler Modes (Color, Angio, and Spectral)
 - 1.3.4. Combined Modes
- 1.4. Ultrasound Scanners
 - 1.4.1. Common Components
 - 1.4.2. Classification
 - 1.4.3. Transducers
- 1.5. Ultrasound Maps and Echonavigation
 - 1.5.1. Spatial Layout
 - 1.5.2. Ultrasound Maps
 - 1.5.3. Transducer Movements
 - 1.5.4. Practical Advice
- 1.6. Trends in Ultrasound
 - 1.6.1. 3D/4D Ultrasound
 - 1.6.2. Sonoelastography
 - 1.6.3. Echopotential
 - 1.6.4. Other Modalities and Techniques



Module 2. Clinical Ultrasound of the Head and Neck

- 2.1. Anatomical Review
 - 2.1.1. Cranium and Face
 - 2.1.2. Tubular Structures
 - 2.1.3. Glandular Structures
 - 2.1.4. Vascular Structures
- 2.2. Ocular Ultrasound
 - 2.2.1. Ultrasound Anatomy of the Eye
 - 2.2.2. Ocular Ultrasound Technique
 - 2.2.3. Indications and Contraindications of Ocular Ultrasonography
 - 2.2.4. Ultrasound Report
- 2.3. Ultrasound of Salivary Glands
 - 2.3.1. Regional Sonoanatomy
 - 2.3.2. Technical Aspects
 - 2.3.3. Most Common Tumor and Non-Tumor Pathologies
- 2.4. Thyroid Ultrasound
 - 2.4.1. Ultrasound Technique
 - 2.4.2. Indications
 - 2.4.3. Normal and Pathological Thyroid
 - 2.4.4. Diffuse Goiter
- 2.5. Ultrasound Study of Lymphadenopathies
 - 2.5.1. Reactive Lymph Nodes
 - 2.5.2. Non-Specific Inflammatory Diseases
 - 2.5.3. Specific Lymphadenitis (Tuberculosis)
 - 2.5.4. Primary Lymph Node Diseases (Sarcoidosis, Hodgkin's Lymphoma, Non-Hodgkin's Lymphoma)
 - 2.5.5. Lymph Node Metastases
- 2.6. Ultrasound of the Supra-Aortic Trunks
 - 2.6.1. Sonoanatomy
 - 2.6.2. Exploration Protocol
 - 2.6.3. Extracranial Carotid Pathology
 - 2.6.4. Vertebral Pathology and Subclavian Steal Syndrome

Module 3. Thoracic Ultrasound

- 3.1. Thoracic Ultrasound Fundamentals
 - 3.1.1. Anatomical Review
 - 3.1.2. Echoes and Artifacts in the Thorax
 - 3.1.3. Technical Requirements
 - 3.1.4. Exploration Systematics
- 3.2. Ultrasound of the Chest Wall, Mediastinum, and Diaphragm
 - 3.2.1. Soft Tissues
 - 3.2.2. Thoracic Cage
 - 3.2.3. Mediastinum
 - 3.2.4. Diaphragm
- 3.3. Pleural Ultrasound
 - 3.3.1. Normal Pleura
 - 3.3.2. Pleural Effusion
 - 3.3.3. Pneumothorax
 - 3.3.4. Solid Pleural Pathology
- 3.4. Pulmonary Ultrasound
 - 3.4.1. Pneumonia and Atelectasis
 - 3.4.2. Pulmonary Neoplasms
 - 3.4.3. Diffuse Lung Disease
 - 3.4.4. Pulmonary Infarction
- 3.5. Cardiac Ultrasound and Basic Hemodynamics
 - 3.5.1. Normal Cardiac Sonoanatomy and Hemodynamics
 - 3.5.2. Examination Technique
 - 3.5.3. Structural Alterations
 - 3.5.4. Hemodynamic Alterations
- 3.6. Trends in Thoracic Ultrasound
 - 3.6.1. Pulmonary Sonoelastography
 - 3.6.2. 3D/4D Thoracic Ultrasound
 - 3.6.3. Other Modalities and Techniques



Module 4. Clinical Vascular Ultrasound in Primary Care

- 4.1. Vascular Ultrasound
 - 4.1.1. Description and Applications
 - 4.1.2. Technical Requirements
 - 4.1.3. Procedure
 - 4.1.4. Interpretation of Results. Risks and Benefits
 - 4.1.5. Limitations
- 4.2. Doppler Ultrasound
 - 4.2.1. Fundamentals
 - 4.2.2. Applications of SOFCs
 - 4.2.3. Types of Doppler Ultrasound
 - 4.2.4. Color Doppler
 - 4.2.5. Power Doppler
 - 4.2.6. Dynamic Doppler
- 4.3. Normal Ultrasound of the Venous System
 - 4.3.1. Anatomy Recap: Venous System of the Upper Extremities
 - 4.3.2. Anatomy Recap: Venous System of the Lower Extremities
 - 4.3.3. Normal Physiology
 - 4.3.4. Regions of Interest
 - 4.3.5. Functional Tests
 - 4.3.6. Report. Vocabulary
- 4.4. Chronic Venous Disease of the Lower Limbs
 - 4.4.1. Definition
 - 4.4.2. CEAP Classification
 - 4.4.3. Morphological Criteria
 - 4.4.4. Examination Technique
 - 4.4.5. Diagnostic Manoeuvres
 - 4.4.6. Sample Report
- 4.5. Acute/Subacute Venous Thrombosis of the Upper Limbs
 - 4.5.1. Anatomical Review
 - 4.5.2. Manifestations of Upper Limb Venous Thrombosis
 - 4.5.3. Ultrasound Characteristics
 - 4.5.4. Examination Technique
 - 4.5.5. Diagnostic Manoeuvres
 - 4.5.6. Technical Limitations
- 4.6. Acute/Subacute Venous Thrombosis of the Lower Limbs
 - 4.6.1. Description
 - 4.6.2. Manifestations of Lower Limb Venous Thrombosis
 - 4.6.3. Ultrasound Characteristics
 - 4.6.4. Examination Technique
 - 4.6.5. Differential Diagnosis
 - 4.6.6. Vascular Report



You will have access to a library filled with educational resources available 24/7, featuring high-quality materials”

04

Teaching Objectives

The Postgraduate Diploma in Thoracic and Vascular Ultrasound for Nursing equips professionals with key skills to apply clinical ultrasound in real-world settings. Through mastering imaging techniques, advanced ultrasound modes, and the use of Doppler, graduates will be able to identify Thoracic and Vascular Pathologies with precision. Additionally, the program will enable professionals to perform systematic exams, interpret findings, and support clinical decisions. As a result, they will enhance their diagnostic capabilities and improve comprehensive patient care in Primary Care settings.



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You will be able to identify common Thoracic Pathologies such as Pneumothorax or even pulmonary consolidations through Ultrasound”



General Objectives

- ◆ Acquire the necessary knowledge in the use of ultrasound for managing common situations in clinical practice
- ◆ Apply the skills learned to perform the duties of a specialist in Ultrasound
- ◆ Utilize the latest clinical advancements in daily nursing practice
- ◆ Understand the indications and limitations of Clinical Ultrasound, and its application in the most common clinical situations



You will gain technical knowledge of the ultrasound machine and its transducers, as well as optimizing parameters for high-resolution images.





Specific Objectives

Module 1. Ultrasound Imaging

- ♦ Optimize ultrasound imaging through in-depth knowledge of the physical principles of ultrasound devices, controls and operation
- ♦ Master basic and advanced ultrasound procedures, both diagnostic and therapeutic
- ♦ Practice all ultrasound modalities in the safest way for the patient
- ♦ Understand the indications and limitations of Clinical Ultrasound and its application in the most common clinical situations

Module 2. Clinical Ultrasound of the Head and Neck

- ♦ Investigate the correct processes for performing ultrasound on the upper part of the patient's body
- ♦ Understand the primary reasons and diseases that require brain ultrasound
- ♦ Manage the correct postures to properly carry out ultrasound
- ♦ Identify and recognize the possible results of the ultrasound sample

Module 3. Thoracic Ultrasound

- ♦ Identify respiratory and cardiological problems for which ultrasound examinations are necessary
- ♦ Perform the due process of taking examinations for rapid diagnosis of possible thoracic problems
- ♦ Identify lung problems in elderly patients through ultrasound
- ♦ know the risks of infarction from the ultrasound scan

Module 4. Clinical Vascular Ultrasound in Primary Care

- ♦ Identify vascular anatomy and physiology using Doppler Ultrasound in Primary Care
- ♦ Apply ultrasound to assess common Vascular Pathologies, such as Venous Insufficiency, Deep Venous Thrombosis, and Peripheral Arterial Disease
- ♦ Interpret ultrasound findings to differentiate between functional and structural alterations of the vascular system
- ♦ Develop skills for using ultrasound in monitoring and following up on Chronic Vascular Diseases

05

Career Opportunities

This program from TECH represents a unique opportunity for nursing professionals who wish to perfect their skills in Thoracic and Vascular Ultrasound. Through a practical and up-to-date approach, graduates will master advanced clinical imaging techniques applied to Primary Care. This specialized knowledge will expand their career opportunities and allow them to actively participate in early diagnosis and monitoring of multiple pathologies.





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Want to work as a Pulmonary and Cardiac Ultrasound Technician? Achieve this in just 6 months with this academic program!”

Graduate Profile

The graduate of this Postgraduate Diploma will be a professional trained to apply advanced ultrasound techniques in Primary Care clinical settings. They will also master the use of ultrasound machines, Doppler modes, and procedures for thoracic and vascular assessments, improving diagnostic accuracy and decision-making. Moreover, graduates will be able to collaborate in multidisciplinary teams, optimize healthcare resources, and actively contribute to the early diagnosis, monitoring, and management of various respiratory and circulatory pathologies.

You will provide comprehensive advice on the maintenance of ultrasound machines in healthcare centers, ensuring their proper integration into clinical services.

- ♦ **Technological Integration in Nursing Practice:** Ability to incorporate clinical ultrasound as a diagnostic support and monitoring tool in nursing care, improving precision and effectiveness in patient care
- ♦ **Critical Thinking and Decision Making:** Ability to analyze ultrasound images, interpret findings, and collaborate in evidence-based clinical decision-making, promoting safe and effective care
- ♦ **Ethical Responsibility and Patient Safety:** Commitment to ethical principles, confidentiality, and safety in performing ultrasound studies, ensuring dignified and respectful treatment of patients
- ♦ **Interdisciplinary Teamwork:** Ability to collaborate with professionals from various medical fields, contributing actively to integrated care through the shared use of diagnostic tools such as ultrasound





After completing this university program, you will be able to apply your knowledge and skills in the following positions:

- 1. Clinical Advisor in Thoracic and Vascular Ultrasound:** Responsible for guiding healthcare teams in the implementation and efficient use of Thoracic and Vascular Ultrasound in Primary Care, recommending diagnostic protocols and best practices to optimize care quality.
- 2. Specialized Technician in Ultrasound-Guided Procedures:** Responsible for performing thoracic and vascular exams using ultrasound technology, ensuring high-quality images for the early diagnosis of Respiratory and Circulatory Pathologies in an outpatient setting.
- 3. Manager of Ultrasound Diagnostic Units:** Responsible for planning, coordinating, and overseeing the human and material resources related to ultrasound practice in healthcare centers, ensuring operational efficiency and compliance with clinical standards.
- 4. Consultant in Clinical Ultrasound Integration in Primary Care:** A professional who advises healthcare institutions on the strategic incorporation of Thoracic and Vascular Ultrasound into clinical protocols, collaborating in staff training and improving diagnostic processes.



You will guide healthcare teams in the efficient use of Thoracic and Vascular Ultrasound in Primary Care to optimize care quality”

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

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 assess 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

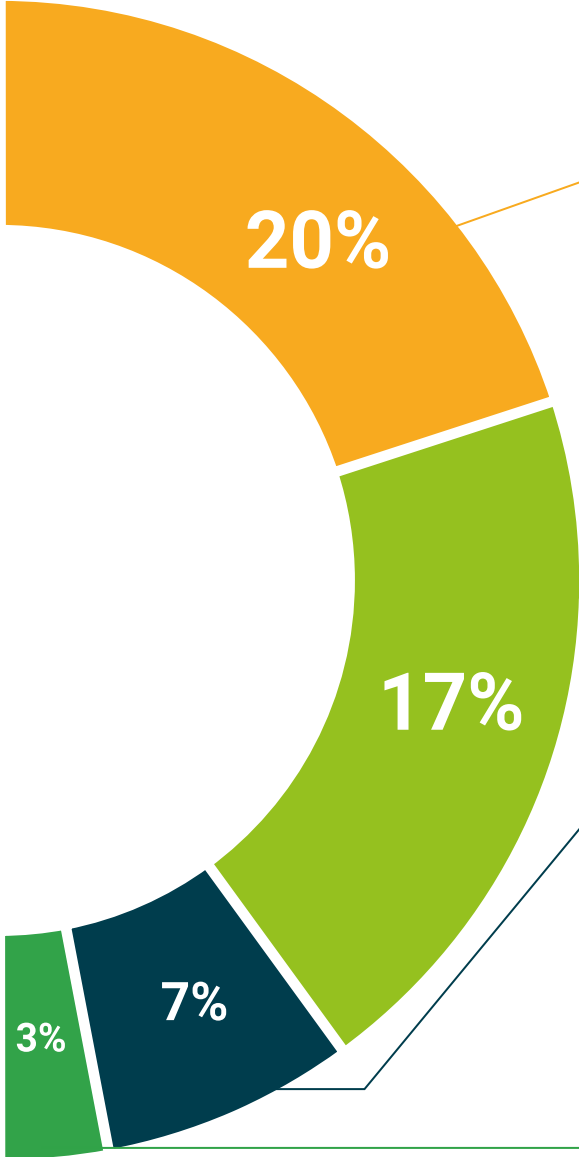
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



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 for 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.



07

Teaching Staff

TECH's priority is to offer the most comprehensive and up-to-date university programs in the academic landscape. For the delivery of this Postgraduate Diploma, TECH has enlisted the expertise of true leaders in the use of Thoracic and Vascular Ultrasound. As a result, they have created a variety of educational materials distinguished by their excellent quality and alignment with the needs of the current market.



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*Thanks to this team of instructors,
you will be informed about the
latest developments in the field of
Thoracic Ultrasound”*

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 at 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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Management



Dr. Fumadó Queral, Josep

- Family Physician at the Primary Care Center of Els Muntells
- Head of the Emergency Ultrasound Group of the Spanish Society of General and Family Physicians (SEMG)
- Graduate in Clinical Ultrasound and Training of Trainers from the University of Montpellier
- 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
- Professor on the Master's Degree in Clinical Ultrasound for Emergencies and Critical Care at the CEU Cardenal Herrera University



Dr. Pérez Morales, Luis Miguel

- Primary Care Physician in the Canarian Health Service
- Family physician at the Primary Care Center of Arucas (Gran Canaria, Canary Islands)
- 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
- Expert in Thoracic Ultrasound by the University of Barcelona
- Expert in Clinical Abdominal and Musculoskeletal Ultrasound for Emergencies and Critical Care by the University CEU Cardenal Herrera
- Diploma of the Curs d'Ecografia en Atenció Primària by the University Rovira i Virgili from the Institut Català de la Salut

Teachers

Dr. Jiménez Díaz, Fernando

- ◆ Expert in Sport Medicine and University Professor
- ◆ Founder and Director of Sportoledo
- ◆ Researcher at the Laboratory of Sports Performance and Injury Rehabilitation of the University of Castilla La Mancha
- ◆ Member of the Medical Service at Club Baloncesto Fuenlabrada
- ◆ PhD in Medicine and Surgery by University of Cordoba
- ◆ President of the Spanish Society of Ultrasound
- ◆ Member of: Spanish Society of Sports Medicine, European Federation of Societies for Ultrasound in Medicine and Biology

Dr. Álvarez Fernández, Jesús Andrés

- ◆ Head Physician at the Juaneda Miramar Hospital
- ◆ Specialist in Intensive Care Medicine and Burn Patient Management at the University Hospital of Getafe
- ◆ Associate Researcher in the area of Neurochemistry and Neuroimaging at the University of La Laguna

Dr. Herrera Carcedo, Carmelo

- ◆ Head of the Ultrasound Unit at the Briviesca Health Center
- ◆ Physician at San Juan de Dios Hospital
- ◆ Family Physician of the Ultrasound Unit at the Briviesca Health Center
- ◆ Tutor at the Family and Community Medicine Teaching Unit in Burgos
- ◆ Teacher at the Spanish School of Ultrasound of the Spanish Society of General and Family Physicians (SEMG)
- ◆ Member of the Spanish Society of Ultrasound (SEECO) and the Spanish Association of Prenatal Diagnosis (AEDP)

Dr. Sánchez Sánchez, José Carlos

- ◆ Director of the Ultrasound Tasks Group of the Spanish Society of General and Family Physicians
- ◆ Specialist in Radiodiagnosis at the Poniente Hospital, El Ejido
- ◆ Master's Degree in Updates on Diagnostic and Therapeutic Techniques in Radiology by Cardenal Herrera University
- ◆ University Expert in Technique and instrumentation, radiology emergencies and Interventional neuro radiology by Francisco de Vitoria University
- ◆ University Expert in Cardiothoracic Radiology and Vascular and Interventional Radiology by the Francisco de Vitoria University
- ◆ Expert in Imaging Techniques in Breast Pathology and Breast Radiology by the University of Barcelona

Dr. De Varona Froloy, Serguei

- ◆ Medical Specialist in Angiology and Vascular Surgery of the Canary Islands Institute of Advanced Medicine
- ◆ Angiologist at Dr. Negrin University Hospital of Gran Canaria
- ◆ Master's Degree in Endovascular Techniques by Boston Scientific P.L

Dr. Fabián Feroso, Antonio

- ◆ Software Engineer at GE Healthcare
- ◆ Product Specialist of the Operating Room Unit for Prim S.A
- ◆ Engineer at the Business Unit of Medicine, Endoscopy, and Traumatology at Skyter
- ◆ Master's Degree in Business Administration by ThePower Business School

Mr. Gálvez Gómez, Francisco Javier

- ◆ Head of Marketing of the Ultrasound Division of SIEMENS Healthcare for Spain and Southern Europe
- ◆ General Ultrasound Imaging Application Specialist for SIEMENS Healthcare in Madrid
- ◆ Ultrasound GI modality and point-of-care leader at GE Healthcare Spain
- ◆ Imaging Department Manager for Dissa- BK Distributor
- ◆ Researcher for Naturin Analytical Laboratory GmbH

Mr. Moreno Valdés, Javier

- ◆ Business Manager of the Ultrasound Division at Canon Medical Systems for Spain
- ◆ Advisor to the Working Group of Residents of the Spanish Society of Medical Radiology
- ◆ Master's Degree in Business Administration from EAE Business School

Dr. Wagüemert Pérez, Aurelio

- ◆ Interventional Pneumologist at the University Hospital San Juan de Dios
- ◆ Interventional Pneumologist at Cardivant Medical Center
- ◆ Interventional Pneumologist at Clinica Tu Consulta
- ◆ Interventional Pulmonologist at the University Hospital of the Canary Islands





Dr. Igeño Cano, José Carlos

- ◆ Head of the Intensive Medicine and Emergency Service at the San Juan de Dios Hospital in Córdoba
- ◆ Responsible for the Patient Welfare Area in the HUCI Project, Humanizing Intensive Care
- ◆ Coordinator of the Planning and Organization and Management Working Group of the Spanish Society of Intensive Care Medicine, Critical Care and Coronary Units (SEMICYUC)
- ◆ Medical Director of the Resuscitation and Post-Surgical Care Unit of the IDC Salud Virgen de Guadalupe Hospital
- ◆ Attending ICU Physician in the Health Service of Castilla, La Mancha
- ◆ Assistant Physician of the Medicine and Neurotrauma Unit of the Nuestra Señora de la Candelaria Hospital
- ◆ Head of Critical Patient Transport Service in Ambulances Juan Manuel SL
- ◆ Master's Degree in Clinical Administration, Medical and Healthcare Management from CEU Cardenal Herrera University
- ◆ Member of: Pan-American and Iberian Federation of Critical Medicine and Intensive Care; Spanish Society, Intensive Care Medicine, Critical Care and Coronary Units

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08

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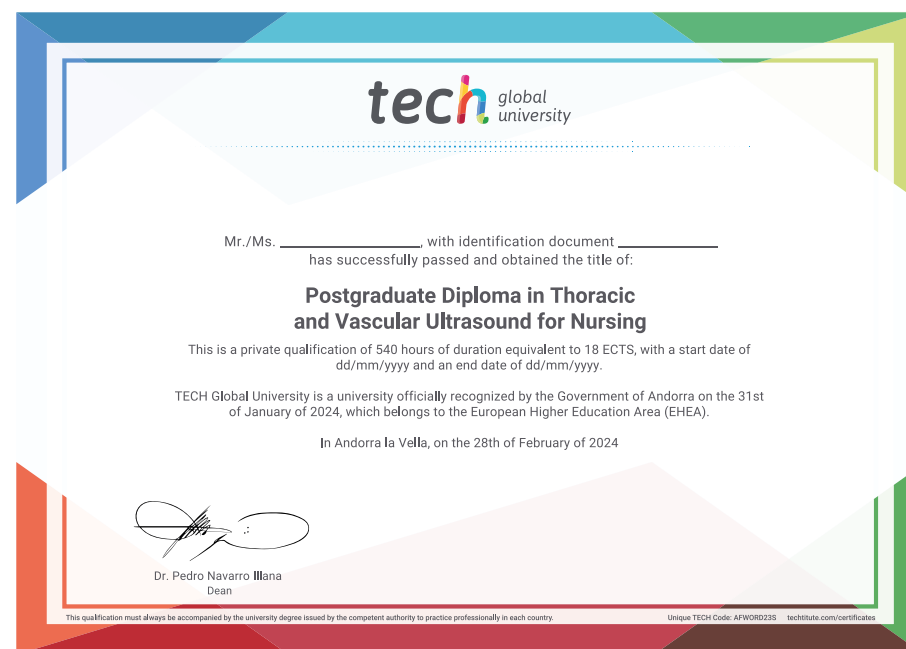
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