Postgraduate Diploma

Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing

tech global university

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Postgraduate Diploma

Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing

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

Website: **www.techtitute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-ultrasound-guided-procedures-other-ultrasound-applications-primary-care-nursing**

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Introduction to the Program

The incorporation of Ultrasound into nursing practice within Primary Care has led to a diagnostic and therapeutic revolution. For example, ultrasound-guided interventions such as peripheral vein cannulation, abscess detection, and monitoring of musculoskeletal injuries have become increasingly common and accessible. In light of this reality, professionals need to update their skills to adapt to technological advancements and ensure safe and efficient care. To support them in this task, TECH Global University has created an exclusive university qualification focused on the multiple applications of Ultrasound in primary healthcare. Additionally, it is offered in a flexible 100% online format, allowing graduates to set their own schedules.

With this fully online Postgraduate Diploma, you will master the most modern techniques for performing Ultrasounds in Primary Care"

The World Health Organization estimates that more than 70% of clinical decisions can benefit from diagnostic imaging. In this context, Ultrasound in Primary Care has become a key tool for Nursing, especially in ultrasound-guided procedures such as venous cannulations or drainage placements. Moreover, the use of this tool by nursing staff reduces puncture failures by 50% and improves patient satisfaction by 40%. This highlights the importance of experts mastering the most modern strategies for implementing this tool in primary healthcare systems.

With this in mind, TECH presents a pioneering program in Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing. Designed by leaders in the field, the curriculum will delve into topics ranging from the physical principles of ultrasound and its interaction with body tissues to the most sophisticated ultrasound modes. The syllabus will also focus on performing multiple ultrasound-guided interventions such as percutaneous biopsy, pericardiocentesis, and even vascular cannulation. Additionally, the teaching materials will offer various strategies for real-time image interpretation, clinical decision-making based on ultrasound findings, and the safe execution of minimally invasive procedures. As a result, graduates will acquire advanced competencies to integrate Ultrasound effectively into daily clinical practice, improving diagnostic accuracy and optimizing the management of common pathologies in Primary Care.

Regarding methodology, this academic journey is supported by the disruptive Relearning system, ensuring a natural and progressive update of knowledge. Nurses will also have the flexibility to set their own schedules, as all they need is an electronic device with internet access to engage with the Virtual Campus.

Furthermore, a prestigious International Guest Director will offer intensive Masterclasses.

This **Postgraduate Diploma in Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing** contains the most complete and up-to-date university program on the market. Its most notable features are:

- The development of practical cases presented by experts in Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing
- 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 renowned International Guest Director will deliver exclusive Masterclasses on the Applications of Ultrasound in Primary Care"

The curriculum is based on the revolutionary Relearning methodology, which will help you reinforce complex concepts efficiently and dynamically"

You will identify the relevant anatomical structures for performing Ultrasounds in various ultrasound-guided procedures.

You will deepen your understanding of the physical and technical foundations of Ultrasound applied to the field of Primary Care.

The program includes a teaching team composed of professionals from the field of Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing, who share their practical experience, as well as 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

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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.

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".

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 Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

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.

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.

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 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 that make up this Postgraduate Diploma have been developed by experts in Clinical Ultrasound and Primary Care. The program delves into the physical principles of ultrasound and ultrasound imaging modes, as well as the operation of ultrasound machines. Additionally, the syllabus thoroughly covers the most relevant ultrasound-guided procedures, such as biopsies, drainage, and vascular cannulations. The teaching materials also include advanced clinical applications, ranging from breast studies to the management of diabetic patients and frail elderly individuals, complemented by the proper preparation of ultrasound reports in healthcare settings.

You will be able to interpret ultrasound images in real-time, contributing to the formulation of highly informed clinical decisions"

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. Modes A and M
- 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. Echopotentiation
- 1.6.4. Other Modes and Techniques

Module 2. Ultrasound-Guided Procedures in Primary Care

2.1. Ultrasound-Guided Fine Needle Aspiration (FNA)
- 2.1.1. Indications/Contraindications. Material
- 2.1.2. Informed Consent
- 2.1.3. Procedure
- 2.1.4. Results
- 2.1.5. Complications
- 2.1.6. Quality Control

2.2. Ultrasound-Guided Percutaneous Biopsy
- 2.2.1. Informed Consent
- 2.2.2. Biopsy Materials (Types of Biopsy Needles)
- 2.2.3. Procedure
- 2.2.4. Complications
- 2.2.5. Care
- 2.2.6. Quality Control

2.3. Drainage of Abscesses and Fluid Collections
- 2.3.1. Indications and Contraindications
- 2.3.2. Informed Consent
- 2.3.3. Requirements and Materials
- 2.3.4. Technique and Approach: Direct Puncture (Trocar Technique) vs. Step to Step (Seldinger Technique)
- 2.3.5. Catheter Management and Patient Care
- 2.3.6. Side Effects and Complications
- 2.3.7. Quality Control

2.4. Ultrasound-Guided Thoracentesis, Pericardiocentesis, and Paracentesis
- 2.4.1. Indications and Advantages over the Anatomical Reference Technique
- 2.4.2. Basic Aspects: Ultrasound Specifications and Ultrasound Anatomy
- 2.4.3. Ultrasound Specifications and Pericardial Drainage Technique
- 2.4.4. Ultrasound Specifications and Thoracic Drainage Technique
- 2.4.5. Ultrasound Specifications and Abdominal Drainage Technique
- 2.4.6. Common Problems, Complications, and Practical Advice

2.5. Ultrasound-Guided Vascular Cannulation
- 2.5.1. Indications and Advantages over the Anatomical Reference Technique
- 2.5.2. Current Evidence on Ultrasound-Guided Vascular Cannulation
- 2.5.3. Basic Aspects: Ultrasound Specifications and Ultrasound Anatomy
- 2.5.4. Ultrasound-Guided Central Venous Cannulation Technique
- 2.5.5. Single Peripheral Catheter and Peripherally Inserted Central Catheter (PICC) Cannulation Technique
- 2.5.6. Arterial Cannulation Technique

2.6. Ultrasound-Guided Infiltrations and Chronic Pain Treatment
- 2.6.1. Infiltrations and Pain
- 2.6.2. Large Joints: Intra-Articular and Myotendinous
- 2.6.3. Small Joints: Intra-Articular and Myotendinous
- 2.6.4. Spinal Column

Module 3. Other Uses of Clinical Ultrasound

3.1. Radial Breast Ultrasound
- 3.1.1. Anatomical Review
- 3.1.2. Technical Requirements
- 3.1.3. Ultrasound Slices
- 3.1.4. Ultrasound Characteristics. Breast Pathology
- 3.1.5. Breast Elastography

3.2. Dermatological Ultrasound
- 3.2.1. Echoanatomy of the Skin and Appendages
- 3.2.2. Ultrasound of Skin Tumors
- 3.2.3. Ultrasound of Inflammatory Skin Diseases
- 3.2.4. Ultrasound in Dermoesthetics and its Complications

3.3. Introduction to Cerebral Clinical Ultrasound
- 3.3.1. Brain Anatomy and of Ultrasound Interest
- 3.3.2. Ultrasound Techniques and Procedures
- 3.3.3. Structural Alterations
- 3.3.4. Functional Alterations
- 3.3.5. Ultrasound in Intracranial Hypertension

3.4. Ultrasound in Diabetes
- 3.4.1. Atherosclerosis of the Aorta/Carotid in Diabetics
- 3.4.2. Parenchymal Echogenicity in Diabetic Patients
- 3.4.3. Biliary Lithiasis in Diabetic Patients
- 3.4.4. Neurogenic Bladder in Diabetic Patients
- 3.4.5. Cardiomyopathy in Diabetic Patients

3.5. Ultrasound in the Study of Frailty in the Elderly
- 3.5.1. Frail Elderly
- 3.5.2. ABCDE Ultrasound in the Frail Elderly Patient
- 3.5.3. Ultrasound Examination of Sarcopenia
- 3.5.4. Ultrasound Examination of Cognitive Deterioration

3.6. Ultrasound Report
- 3.6.1. Ultrasound Note
- 3.6.2. Ultrasound Derivation
- 3.6.3. Ultrasound Report in PC

You will be able to access the Virtual Campus at any time and download the contents to consult them whenever you wish"

04

Teaching Objectives

The Postgraduate Diploma in Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing provides advanced skills to perform precise ultrasound examinations and minimally invasive procedures with visual guidance. It also equips professionals to interpret real-time images, make informed clinical decisions, and manage techniques such as vascular cannulations. Additionally, it strengthens competencies in patient safety, the management of ultrasound equipment, and interdisciplinary communication, enhancing the quality and efficiency of nursing care.

You will apply safety protocols and appropriate management techniques during the performance of ultrasound-guided procedures"

General Objectives

- Integrate Clinical Ultrasound into daily medical practice, enabling faster and more accurate patient assessment in Primary Care
- Develop the ability to interpret ultrasound images in real-time, improving decision-making and optimizing diagnosis
- Use ultrasound as a complementary tool to physical examination, reducing the need for invasive tests and accelerating treatment
- Improve patient safety by using ultrasound for early detection of pathologies and treatment monitoring
- Acquire skills in identifying anatomical structures and normal and pathological ultrasound patterns in different body systems
- Manage key ultrasound techniques for common pathologies in Primary Care, such as abdominal, musculoskeletal, cardiovascular, and pulmonary conditions
- Optimize the use of ultrasound in image-guided procedures, facilitating the performance of minimally invasive techniques with greater precision
- Foster critical thinking and clinical analysis based on scientific evidence, applying standardized protocols in Clinical Ultrasound
- Train to integrate ultrasound into the management of chronic patients, emergencies, and immediate care situations in outpatient settings
- Promote the use of technology and new digital tools in Ultrasound, encouraging continuous updates and innovation in medical practice

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. Ultrasound-Guided Procedures in Primary Care

- Acquire skills in performing ultrasound-guided techniques such as punctures, drainage, and central and peripheral venous access
- Improve precision and safety in performing invasive procedures through the use of ultrasound
- Recognize key anatomical structures to optimize the effectiveness of interventional techniques
- Minimize complications in clinical procedures by applying real-time ultrasound

Module 3. Other Uses of Clinical Ultrasound

- Explore new applications of ultrasound in the evaluation of Dermatological, Endocrine, and Ophthalmological Pathologies
- Analyze the use of ultrasound in assessing the musculoskeletal system in common pathologies in Primary Care
- Evaluate the potential of lung ultrasound in diagnosing infections, inflammatory processes, and Chronic Respiratory Diseases
- Expand knowledge of the use of ultrasound in unconventional settings, such as sports medicine or home care

Gain a deep understanding of the muscular and skeletal systems, enhancing your ability to identify injuries, inflammations, and structural alterations with precision"

05

Career Opportunities

This TECH program represents a unique opportunity for nurses who wish to update their skills in Ultrasound applied to Primary Care. Through specialized training in ultrasound-guided procedures and advanced techniques, graduates will acquire practical skills that enhance diagnostic and therapeutic precision. Thanks to this knowledge, they will be able to expand their professional opportunities.

Looking to work as a Specialist in Ultrasound-Guided Procedures for Nursing? This qualification will provide you with the tools to achieve that in just 6 months"

Graduate Profile

The graduate of this Postgraduate Diploma will be a professional trained to use advanced ultrasound techniques for diagnosis and treatment. Additionally, they will have the skills to perform safe and precise ultrasound-guided procedures, interpret real-time images, and make informed clinical decisions. Graduates will also be prepared to innovate in clinical practice, improve patient care, and foster ongoing ultrasound training within the nursing field.

You will efficiently manage ultrasound resources in Primary Care centers, ensuring the proper maintenance of equipment in ultrasound-guided services.

- **Technological Integration in Nursing Practice:** Ability to incorporate clinical ultrasound as a diagnostic and monitoring support tool in nursing care, improving the precision and effectiveness of patient care.
- **Critical Thinking and Decision Making:** Skill in analyzing ultrasound images, interpreting findings, and collaborating 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 prepared to apply your knowledge and skills in the following roles:

1. **Consultant in Ultrasound for Nursing in Primary Care:** A specialist who provides support to nursing professionals in the implementation and proper use of ultrasound-guided techniques, facilitating the update and development of clinical competencies based on ultrasound.
2. **Specialist Technician in Ultrasound-Guided Procedures for Nursing:** Responsible for operating and maintaining ultrasound equipment, assisting in ultrasound-guided interventions, and ensuring the precision and safety of procedures in clinical environments.
3. **Manager of Ultrasound Services in Primary Care:** Responsible for coordinating and managing ultrasound resources in Primary Care centers, ensuring equipment maintenance, organizing protocols, and ensuring the quality of ultrasound-guided services.
4. **Consultant in Ultrasound Innovation for Nursing:** An expert who advises on incorporating new ultrasound techniques and technologies into nursing practice, collaborating with multidisciplinary teams to optimize diagnoses and treatments in Primary Care.

> *You will ensure the correct functioning and calibration of ultrasound devices in Primary Care settings"*

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.

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.

"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.

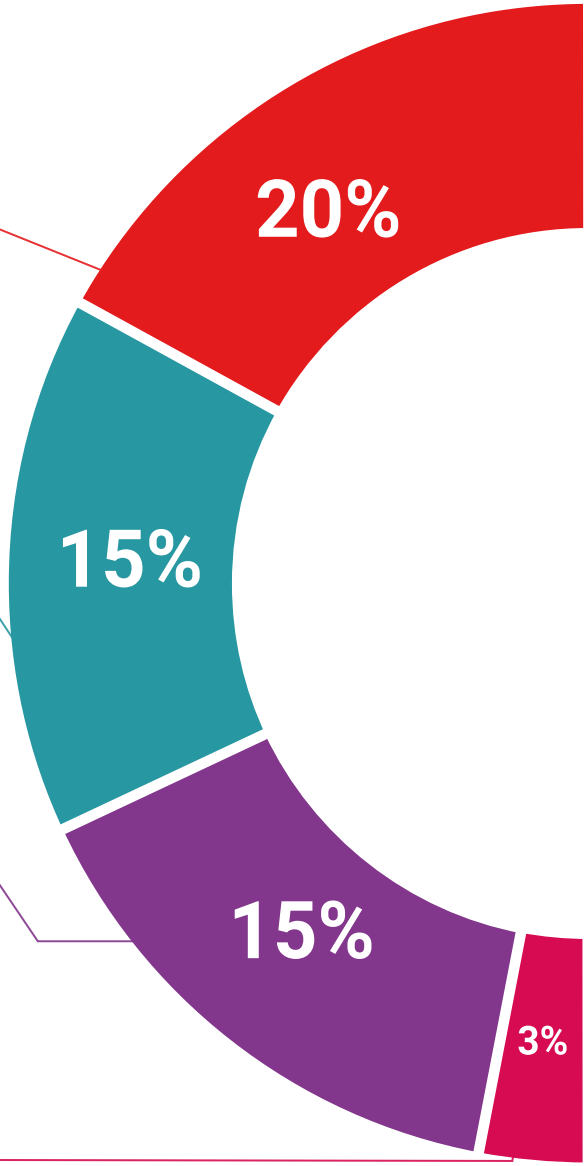
Interactive Summaries

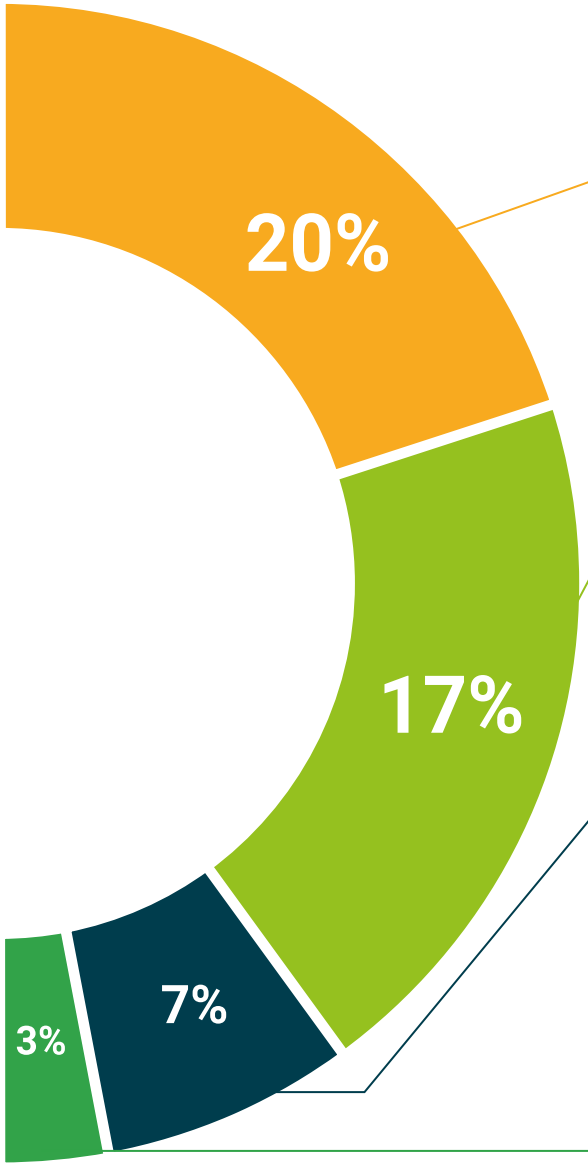
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 is committed to carefully selecting the instructors who teach its programs, ensuring superior-quality education for all students. Those who undertake this university qualification will have access to a teaching team that is a reference in Ultrasound-Guided Procedures within the Primary Care setting. Furthermore, their deep knowledge of Ultrasound will provide graduates with access to updated content, enabling them to make a significant leap in their careers as nurses.

The teaching team is composed of renowned experts in performing Ultrasound-Guided Procedures using tools such as 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

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

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 Montpelier
- 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 Catalá de la Salut

Teachers

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

- 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. Barceló Galíndez, Juan Pablo

- Medical Director at Bridgestone Hispania, S.A., Bilbao
- Ultrasound Service in Mutualia Ercilla Clinic
- Medical Specialist in Occupational Medicine

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 Readaptation 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 and European Federation of Societies of Ultrasound in Medicine and Biology

Dr. Sánchez Sánchez, José Carlos

- Director of the Ultrasound Tasks Group of the Spanish Society of General and Family Physicians.
- Specialist Medical Officer 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. Argüeso García, Mónica

- Attending physician of the Intensive Care Medicine Service at the Gran Canaria Island Maternity Hospital
- Doctor of Medicine
- Instructor in Advanced Life Support of the SEMICYUC national CPR plan
- Clinical Simulation Instructor
- Bachelor's Degree in Medicine and Surgery

Dr. Cabrera González, Antonio José

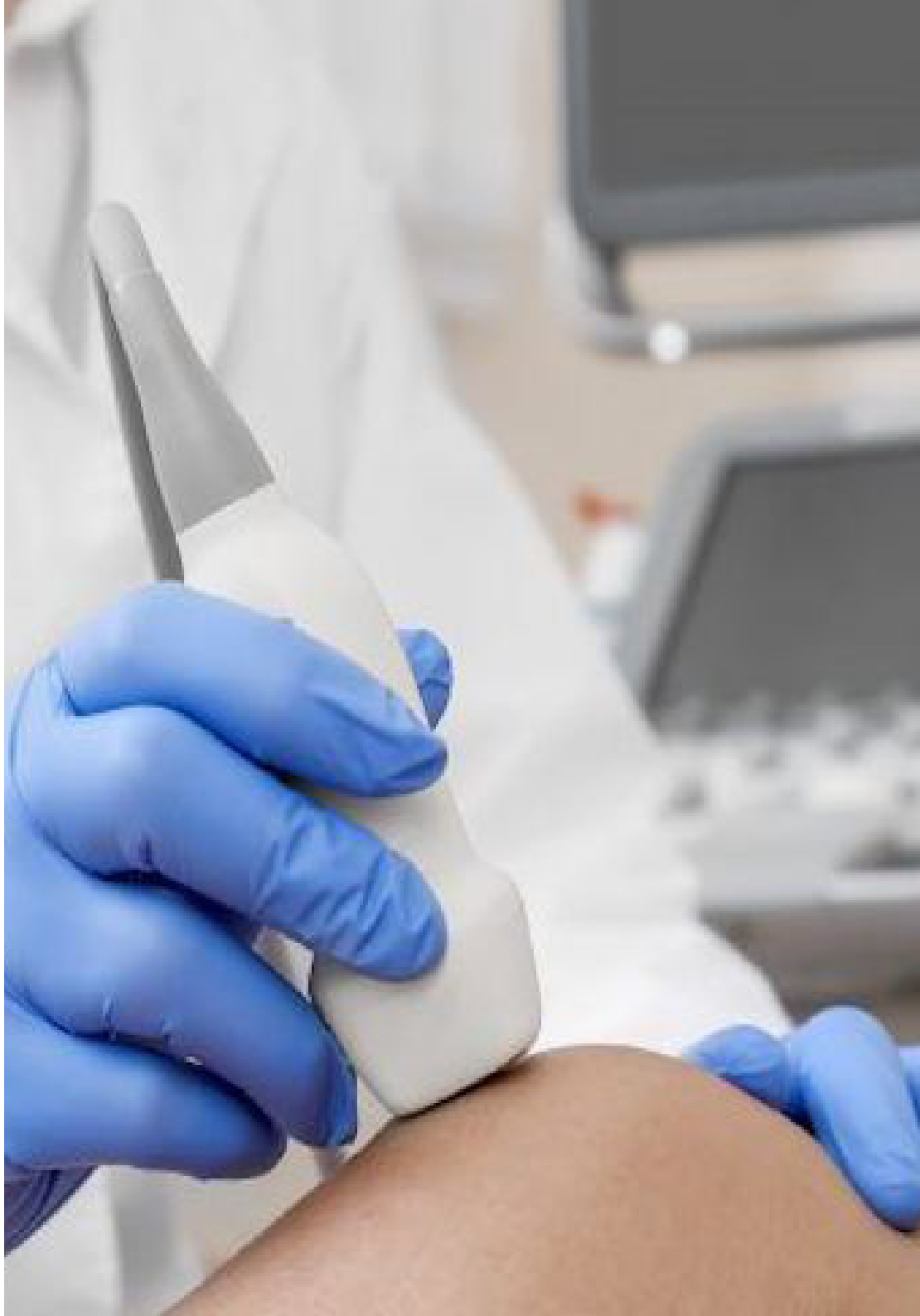
- General Practitioner at the Arucas Medical Center in Las Palmas de Gran Canaria
- General Practitioner at the Tamaraceite Health Center in Las Palmas de Gran Canaria.
- Expert in Medical Services of Recognition in Consultation and Radiodiagnostics

Dr. De Varona Frolov, 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 Fermoso, Antonio

- Software Engineer at GE Healthcare
- Product Specialist of the Operating Room Unit for Prim S.A.
- Engineer for Skyter's Medical, Endoscopy and Traumatology Business Unit.
- 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 of 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. López Cuenca, Sonia

- Specialist in Family Medicine and Intensive Care at the Hospital Universitario Rey Juan Carlos
- Intensivist at the University Hospital of Getafe
- Researcher of the Madrid Health Service
- Intensivist at the Hospital Los Madroños
- Out-of-hospital emergency physician in SUMMA

Dr. Corcoll Reixach, Josep

- Coordinator Responsible for Clinical Ultrasound for the Medical Directorate of the Primary Care Management of Mallorca
- Former Director General of Planning and Financing at the Ministry of Health of the Balearic Islands
- Family Doctor at the Tramuntana Health Center.
- Master's Degree in Health Management and Administration from the National School of Health, Carlos III Health Institute
- Diploma in Pulmonary Ultrasound in Disease by COVID-19
- Member of the Spanish Society of Family and Community Medicine.

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08

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Modality: **online**

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Postgraduate Diploma in Ultrasound-Guided Procedures and Other Ultrasound Applications in Primary Care for Nursing

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TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

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- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **18 ECTS**
- Schedule: **at your own pace**
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Postgraduate Diploma

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