



# Accidents and Emergencies in Primary Care for Nursing

» Modality: Online

» Duration: 6 weeks

» Certificate: TECH Global University

» Accreditation: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/nursing/postgraduate-certificate/clinical-ultrasound-accidents-emergencies-primary-care-nursing

## Index

02 Introduction to the Program Why Study at TECH? p. 4 p. 8 05 03 Study Methodology Syllabus **Teaching Objectives** p. 20 p. 12 p. 16 06 Certificate **Teaching Staff** p. 30 p. 36





## tech 6 | Introduction to the Program

According to a new report by the World Health Organization, 68% of healthcare centers in Europe use Ultrasound to optimize urgent care. In this context, professionals play an active role by employing this technique to detect critical pathologies such as Pneumothorax and accelerate the application of treatments.

As a result, they need advanced competencies to use this tool precisely and quickly, facilitating immediate diagnoses and improving clinical decision-making in high-pressure situations. Only in this way can they elevate the quality and safety of healthcare delivery.

In this framework, TECH launches an exclusive Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care for Nursing. Designed by renowned specialists, the academic pathway will delve into topics ranging from post-traumatic aortic dissections and the management of Splenorenal Effusions to Obstructive Shock. Along these lines, the syllabus will focus on the early identification of prevalent conditions such as Cardiac Arrest and Pneumonia. At the same time, the didactic materials will cover updated protocols for quick and effective evaluation through Ultrasound, strengthening practical skills in critical situations. As a result, graduates will acquire advanced skills to integrate Ultrasound as a fundamental diagnostic tool in Primary Care, facilitating the early detection of pathologies requiring immediate attention.

Furthermore, this curriculum is delivered using the disruptive Relearning methodology to promote a natural and progressive knowledge update. Additionally, nurses will have the flexibility to plan their own schedules and study pace. They will only need an electronic device with internet access to immerse themselves in the Virtual Campus.

Additionally, a prestigious International Guest Director will deliver a disruptive Masterclass.

This Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies 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 Clinical Ultrasound in Accidents and Emergencies 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 a detailed Masterclass on the most modern Clinical Ultrasound techniques for addressing Accidents and Emergencies in Primary Care"

## Introduction to the Program | 7 tech



You will gain advanced competencies for performing and interpreting Ultrasounds for the rapid diagnosis of critical pathologies"

The teaching staff includes professionals from the field of Clinical Ultrasound in Accidents and Emergencies in Primary Care for Nursing, who bring their work experience to this program, along with renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide 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, professionals will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will master the most up-to-date ultrasound protocols for assessing severe situations such as Obstructive Shock.

The Relearning system will allow you to learn with less effort and greater efficiency, engaging more in your professional specialization as a nurse.







## tech 10 | Why Study 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 syllabus





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

## 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 toprated 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.





## tech 14 | Syllabus

## Module 1. Clinical Ultrasound in Accidents and Emergencies

- 1.1. Ultrasound in Respiratory Failure
  - 1.1.1. Spontaneous Pneumothorax
  - 1.1.2. Bronchospasm
  - 1.1.3. Pneumonia
  - 1.1.4. Pleural Effusion
  - 1.1.5. Heart Failure
- 1.2. Ultrasound in Shock and Cardiac Arrest
  - 1.2.1. Hypovolemic Shock
  - 1.2.2. Obstructive Shock
  - 1.2.3. Cardiogenic Shock
  - 1.2.4. Distributive Shock
  - 1.2.5. Cardiac Arrest
- 1.3. Ultrasound in Polytrauma: Eco-FAST
  - 1.3.1. Pericardial Effusion
  - 1.3.2. Hemothorax and Pneumothorax
  - 1.3.3. Hepatorenal or Perihepatic Effusion
  - 1.3.4. Splenorenal or Perisplenic Effusion
  - 1.3.5. Perivesical Effusion
  - 1.3.6. Post-Traumatic Aortic Dissection
  - 1.3.7. Musculoskeletal Injuries
- 1.4. Genitourinary Emergencies
  - 1.4.1. Obstructive Uropathy
  - 1.4.2. Uterine Emergencies
  - 1.4.3. Ovarian Emergencies
  - 1.4.4. Bladder Emergencies
  - 1.4.5. Prostatic Emergencies
  - 1.4.6. Scrotal Emergencies





## Syllabus | 15 tech

- 1.5. Acute Abdomen
  - 1.5.1. Cholecystitis
  - 1.5.2. Pancreatitis
  - 1.5.3. Mesenteric Ischemia
  - 1.5.4. Appendicitis
  - 1.5.5. Hollow Viscus Perforation
- 1.6. Ultrasound in Sepsis
  - 1.6.1. Hemodynamic Diagnosis
  - 1.6.2. Source Detection
  - 1.6.3. Handling of Liquids



Access the multimedia resource library and all course materials from day one, with no fixed schedules"





## tech 18 | Teaching Objectives



## **General Objectives**

- Acquire the necessary knowledge in the use of ultrasound to manage common situations in your clinical practice
- Apply the skills acquired in performing the duties of an Ultrasound Specialist
- Use the latest clinical developments in the daily tasks of Nursing professionals
- Understand the indications and limitations of Clinical Ultrasound, and its application in the most common clinical situations



The online methodology of this program will allow you to choose when and where to study, without interfering with your professional duties"





## Teaching Objectives | 19 tech



## **Specific Objectives**

- Apply ultrasound protocols in critical situations to improve decision-making in Accidents and Emergencies
- Develop competencies in using ultrasound for the rapid assessment of patients with Trauma, Shock, or respiratory distress
- Identify ultrasound signs of urgent pathologies such as Pneumothorax, Pericardial Effusion, Internal Bleeding, or Aneurysms
- Integrate ultrasound into the initial care of critically ill patients, optimizing stabilization and timely treatment





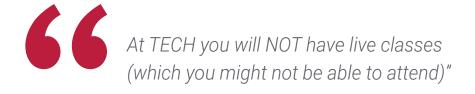
## tech 22 | Study Methodology

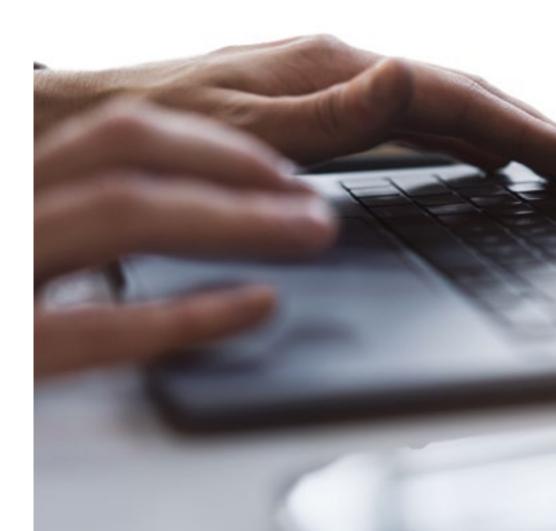
## The student: the priority of all TECH programs

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.







## 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"

## tech 24 | Study Methodology

#### 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.



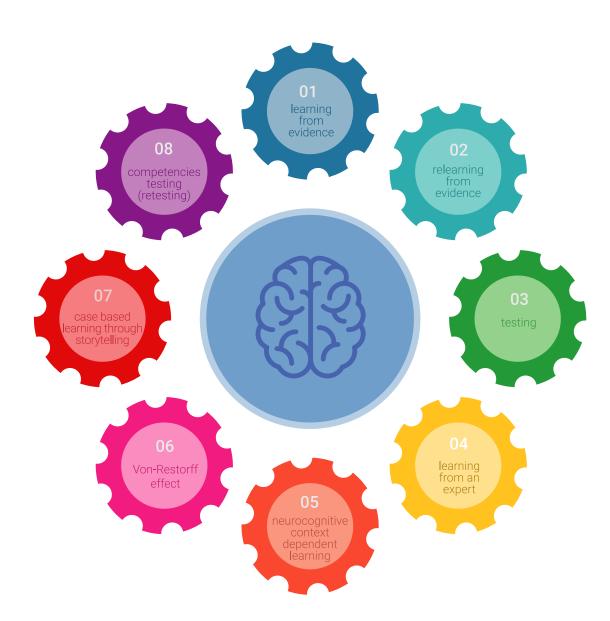
## Relearning Methodology

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.



## tech 26 | Study Methodology

## 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.

## Study Methodology | 27 tech

## 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.

## tech 28 | Study Methodology

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.

## Study Methodology | 29 tech



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.

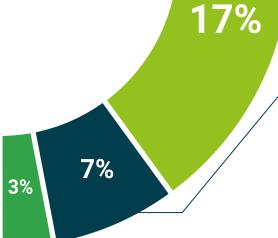




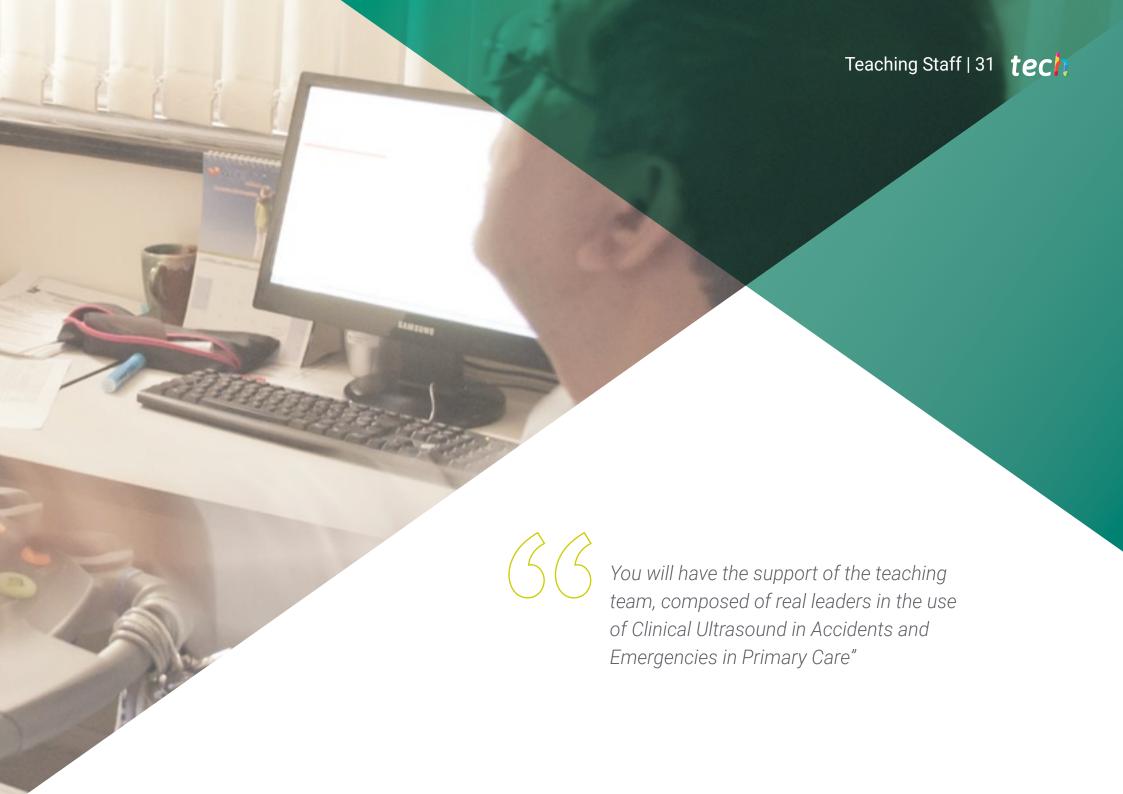
#### **Quick Action Guides**

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.









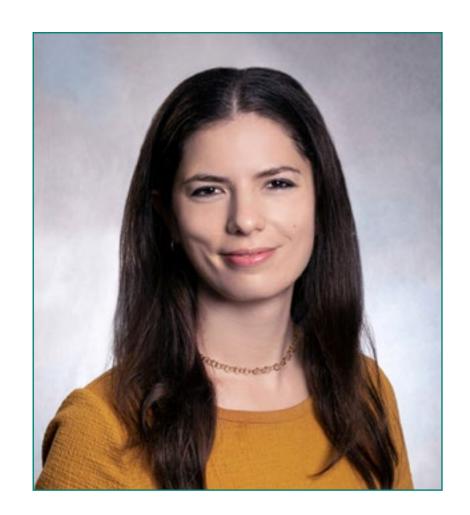
### **International Guest Director**

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"

## tech 34 | Teaching Staff

## 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 Symposiun
- 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

- 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. 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. Segura Blázquez, José María

- Family Doctor at the Canary Institute of Advanced Medicine
- Family Doctor at the Canalejas Health Center in Las Palmas de Gran Canaria
- Family Doctor in Tres Ramblas Medical Center of Las Palmas de Gran Canaria
- Master's Degree in Public Health and Epidemiology at the University of Las Palmas de Gran Canaria.
- Member of: Spanish Society of Primary Care Physicians and Canary Society of Ultrasound

#### Dr. Corcoll Reixach, Josep

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





## tech 38 | Certificate

This private qualification will allow you to obtain a **Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care 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 Clinical Ultrasound in Accidents and Emergencies in Primary Care for Nursing

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



Mr./Ms. \_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care for Nursing

This is a private qualification of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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



health confidence people

health information tutors

education information teaching

guarantee accreditation teaching
institutions technology learning



# Postgraduate Certificate Clinical Ultrasound in Accidents and Emergencies in Primary Care for Nursing

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

