



Postgraduate Certificate

Clinical Ultrasound in Accidents and Emergencies in Primary Care

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

6 ECTS Credits
Hours 150 hours.

We bsite: www.techtitute.com/medicine/postgraduate-certificate/clinical-ultrasound-accidents-emergencies-primary-care

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tech 06 | Introduction

Emergency ultrasound has the ability to improve and expedite patient care. It is often used to detect, identify or as a guide for respiratory failure, shock and cardiac arrest, polytrauma, sepsis or genitourinary emergencies, among others.

The use of clinical ultrasound in primary care facilitates the work of the health professional, allowing him to develop a thorough diagnosis of the pathology presented by the patient for subsequent treatment.

With this Postgraduate Certificate you will have the opportunity to take a teaching program that brings together the most advanced and in-depth knowledge of Clinical Ultrasound in Accidents and Emergencies in Primary Care, where a group of teachers of high scientific rigor and extensive international experience offers you the most complete and updated information on the use of ultrasound as a complement to the physical examination in primary care.

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



This course contains a didactic program designed by experts, which positions it as a product of the highest scientific rigor at international level"

This Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care contains the most complete and up-to-date scientific program on the market. The most important features of the course are:

- Development of numerous clinical cases presented by experts in ultrasound
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- New diagnostic-therapeutic developments on evaluation, diagnosis, and intervention in problems or disorders that can be addressed with ultrasound.
- It contains practical exercises where the self-evaluation process can be carried out to improve learning
- Algorithm-based interactive learning system for decision-making in the presented clinical situations
- Special emphasis on evidence-based medicine and research methodologies in ultrasound processes
- Content that is accessible from any fixed or portable device with an Internet connection
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments



You will have distinguished specialists in the field, who will guide and advise you throughout the learning process"

Its teaching staff is made up of prestigious and renowned professionals, with extensive experience in healthcare, teaching, and research in various countries, contributing their extensive professional to this Postgraduate Certificate.

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

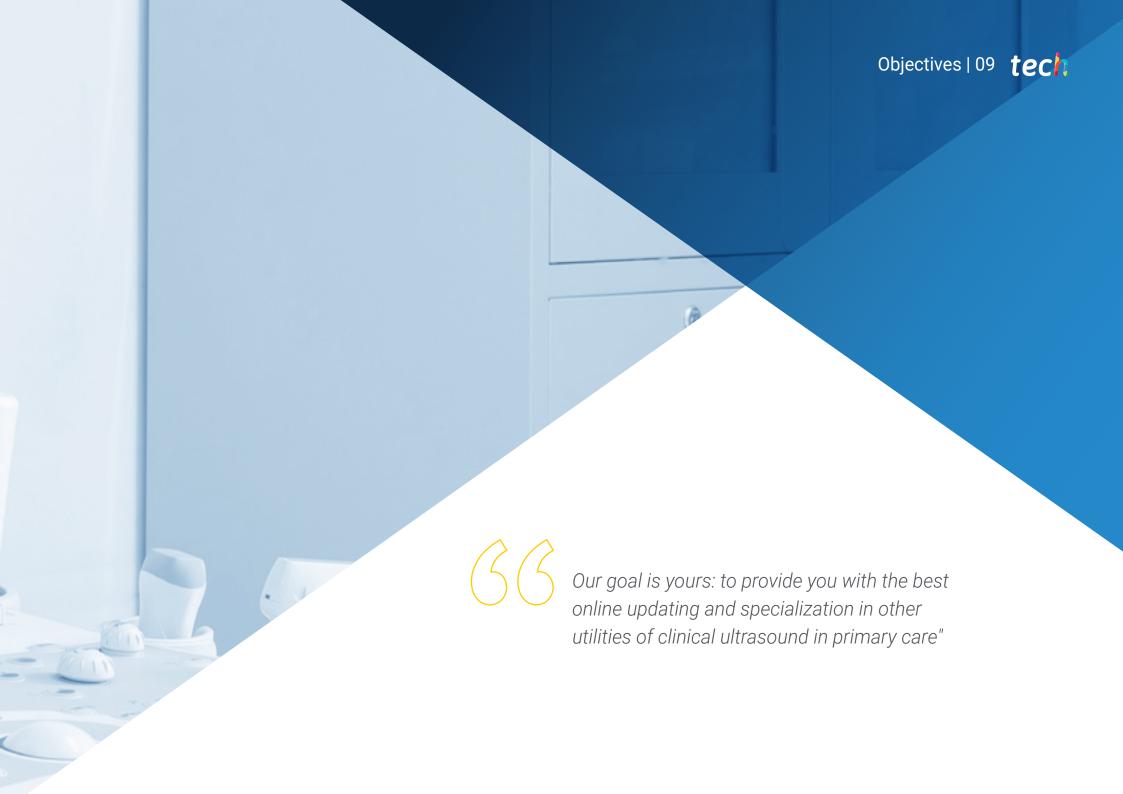
The contents generated for this Postgraduate Certificate, as well as the videos, self-exams, clinical cases, and modular exams, have been thoroughly reviewed, updated, and integrated by the professors and the team of experts that make up the working group, in order to facilitate, in a gradual and educational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

Thanks to the e-learning methodology, on which the this program is based, you will assimilate more quickly and for a longer period of time.

This 100% online course will allow you to train where and when you want, in a practical way and adapted to your needs.







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General Objectives

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





Objectives | 11 tech



Specific Objectives

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



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You will have a virtual classroom, where you will find real cases of prestigious health professionals, which will help you develop your skills with the ultrasound"

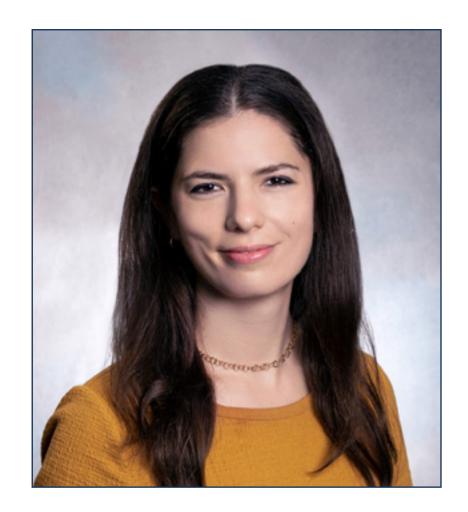
International Guest Director

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 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"

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Management



Dr. Fumadó Queral, Josep

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



Dr. Pérez Morales, Luis Miguel

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

Professors

Dr. Arancibia Zemelman, Germán

• Radiology Department Specialis at Clínica Meds. Santiago de Chile (Chile)

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Dr. Fabián Fermoso, Antonio

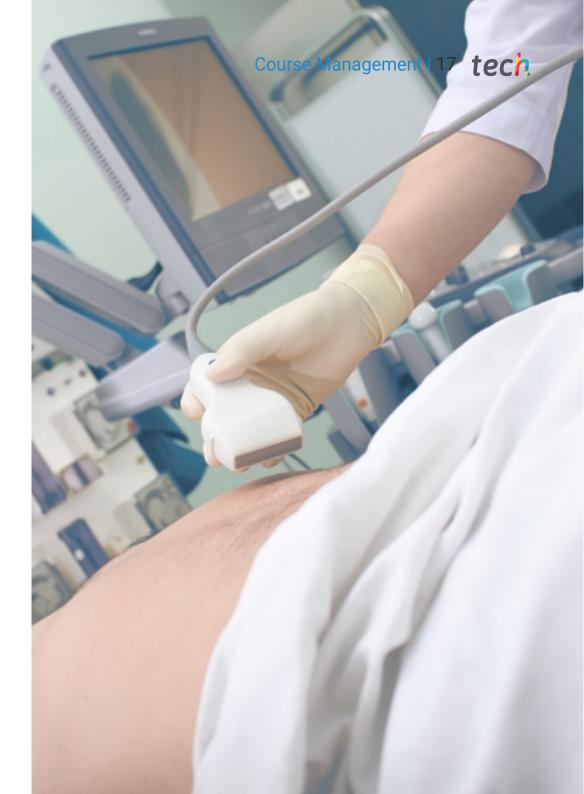
• Global Clinical Insights Leader Point of Care. General Electric Healthcare. Madrid.

Dr. Gálvez Gómez, Francisco Javier

• Ultrasound Portfolio Solutions Manager España. SIEMENS Healthcare. Madrid.

Dr. García García, Nicasio

• Family Physician (Schamann Health Center).



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• Business Manager Ultrasound. Canon (Toshiba) Medical Systems. Madrid.

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 Madrid.

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 Specialist in Anesthesiology, Resuscitation, and Pain Management. Getafe University Hospital. Madrid.

Professor. Dr. Santos Sánchez, José Ángel

• Specialist in the Radiology Department. Salamanca University Hospital. Salamanca

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Dr. Wagüemert Pérez, Aurelio

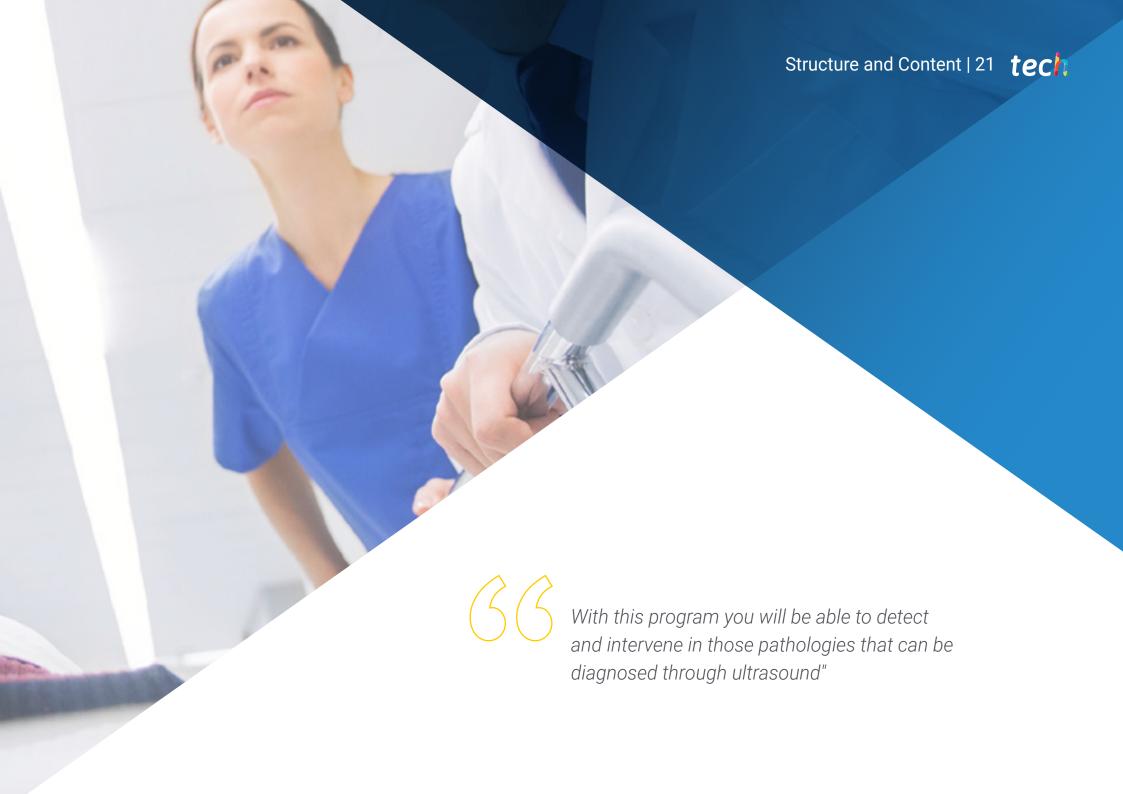
• Specialist in Pulmonology. San Juan de Dios Hospital. Santa Cruz de Tenerife (Canary Islands).



A unique, key, and decisive Training experience to boost your professional development"







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Module 1. Clinical Ultrasound in 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





Structure and Content | 23 tech

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





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At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in professional medical practice.



Did you know that this method was developed in 1912 at Harvard for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

- Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
- 2. The learning process has a clear focus on practical skills that allow the 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.
- 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.



Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

The physician will learn through real cases and by solving complex situations in simulated learning environments.

These simulations are developed using state-of-the-art software to facilitate immersive learning.





Methodology | 29 tech

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

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In this program you will have access to the best educational material, prepared with you in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

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.



Latest Techniques and Procedures on Video

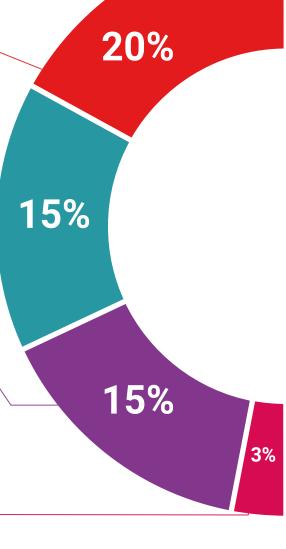
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



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.

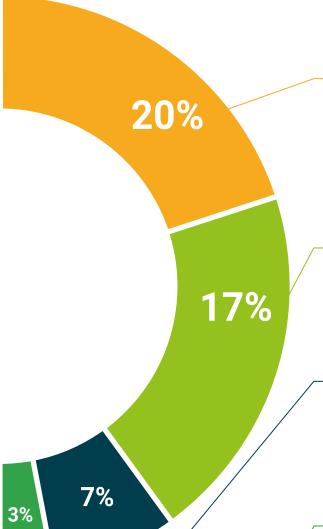
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





Additional Reading

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



Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Re-testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.



Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.

Quick Action Guides



We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.





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This Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care contains the most complete and up-to-date scientific program on the market.

After students have passed the assessments, they will receive by certified mail their corresponding **Postgraduate Certificate Certificate** issued by TECH Technological University.

The diploma issued by TECH Technological University will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Clinical Ultrasound in Accidents and Emergencies in Primary Care

ECTS: 6

Official Number of Hours: 150



POSTGRADUATE CERTIFICATE

in

Clinical Ultrasound in Accidents and Emergencies in Primary Care

This is a qualification awarded by this University, with 6 ECTS credits and equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy .

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020



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Postgraduate Certificate

Clinical Ultrasound in Accidents and Emergencies in Primary Care

Course Modality: Online

Duration: 6 weeks

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6 ECTS Credits Hours 150 hours.



Clinical Ultrasound in Accidents and Emergencies in Primary Care

