Postgraduate Certificate

Imaging Technology in Cardiorespiratory Arrest

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Postgraduate Certificate
Imaging Technology in Cardiorespiratory Arrest

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/in/medicine/postgraduate-certificate/imaging-technology-cardiorespiratory-arrest**

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01

Introduction

Recent scientific studies show that there many cardiac arrests per year, one of the main causes being pulmonary thromboembolism. In order to make an early diagnosis and apply the most appropriate treatment, experts have drawn up guides to unite concepts. In this regard, one of the most widely used is the *CAUSE*Protocol, which provides a diagnostic approach to the origins of non-arrhythmogenic cardiopulmonary arrest. However, some specialists are not aware of the correct application of this procedure, with an increased risk of severe neurological sequelae in patients. For this reason, TECH has designed a 100% online program for experts to acquire comprehensive knowledge in this area.

You will delve into the diagnoses of potentially reversible causes of cardiac origin. And in just 6 weeks!"

Occasionally, Trauma occurs where patients present with Pulseless Electrical Activity (PEA), potentially leading to a lack of effective blood perfusion throughout the body. In turn, the consequences are serious and potentially life-threatening if not addressed in the right way. For example, this can lead to damage to vital organs such as the brain, heart, kidneys and liver. In these cases, it is crucial that experts act quickly, since early treatment can make the difference in the recovery of patients.

Aware of this reality, TECH has implemented a Postgraduate Certificate that will address in detail the diagnosis of pseudo-ESPA. The didactic materials, prepared by an experienced teaching staff, will go into the use of imaging tests to obtain accurate information on the state of health of limbs such as the heart.

Likewise, the physicians will delve into algorithms for clinical decision making. Along the same lines, they will analyze in depth the most advanced diagnostic and therapeutic processes, in order to offer the highest quality to critical users. This program will also include multiple case studies, so that the graduates can develop their studies as if they were dealing with real cases.

It should be noted that the program is based on a 100% online methodology, allowing students to complete it comfortably and at their own pace. For the analysis of its contents, students will only need an electronic device with Internet access, since the schedules and evaluation chronograms can be planned individually. Along the same lines, the syllabus is supported by the innovative *Relearning*teaching system, which consists of the reiteration of key concepts to guarantee their assimilation. At the same time, mixing the learning process with real situations will allow the acquisition of practical skills in a natural and progressive way, without the extra effort of memorizing.

This **Postgraduate Certificate in Imaging Technology in Cardiorespiratory Arrest** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in Imaging Technology in Cardiorespiratory Arrest
- 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

You will master Transesophageal Echocardiography in Cardiorespiratory Arrest and be at the forefront of healthcare technology"

Do you want to perform the most accurate assessments for the recovery of spontaneous circulation? Bet on TECH and experience a quality leap in your career"

You'll tackle the BLUE Protocol at the best digital university in the world, according to Forbes.

Relearning will allow you to learn with less effort and higher performance, involving you more in your professional specialization.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as 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 immersive education programmed to learn in real situations.

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

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Objectives

This comprehensive program, consisting of 150 hours of instruction, will allow students to analyze the impact of ultrasound for the identification of potentially reversible causes. In this same sense, graduates will apply to their procedures the most effective protocols for the performance of lung ultrasound scans. On the other hand, they will take into account the impact of ultrasound studies in the global control of patients in cardiorespiratory arrest.

A high intensity program that will allow students to advance quickly and efficiently in their learning process"

General Objectives

- Analyze the impact of ultrasound studies in the global management of patients in CPR
- Determine the different existing protocols and their real value for the use of ultrasound in the CRA patient
- Examining the impact of echocardiography
- Analyze the impact of pulmonary ultrasonography

Access 24 hours a day to the most innovative didactic material offered by this program"

Specific Objectives

- Analyze the specific indications
- Study the exact moment to perform ultrasound tests
- Evaluate and analyze the echocardiography protocol in CRA and the lung ultrasound protocol in CRA
- Analyze the impact of ultrasound for the identification of potentially reversible causes

03

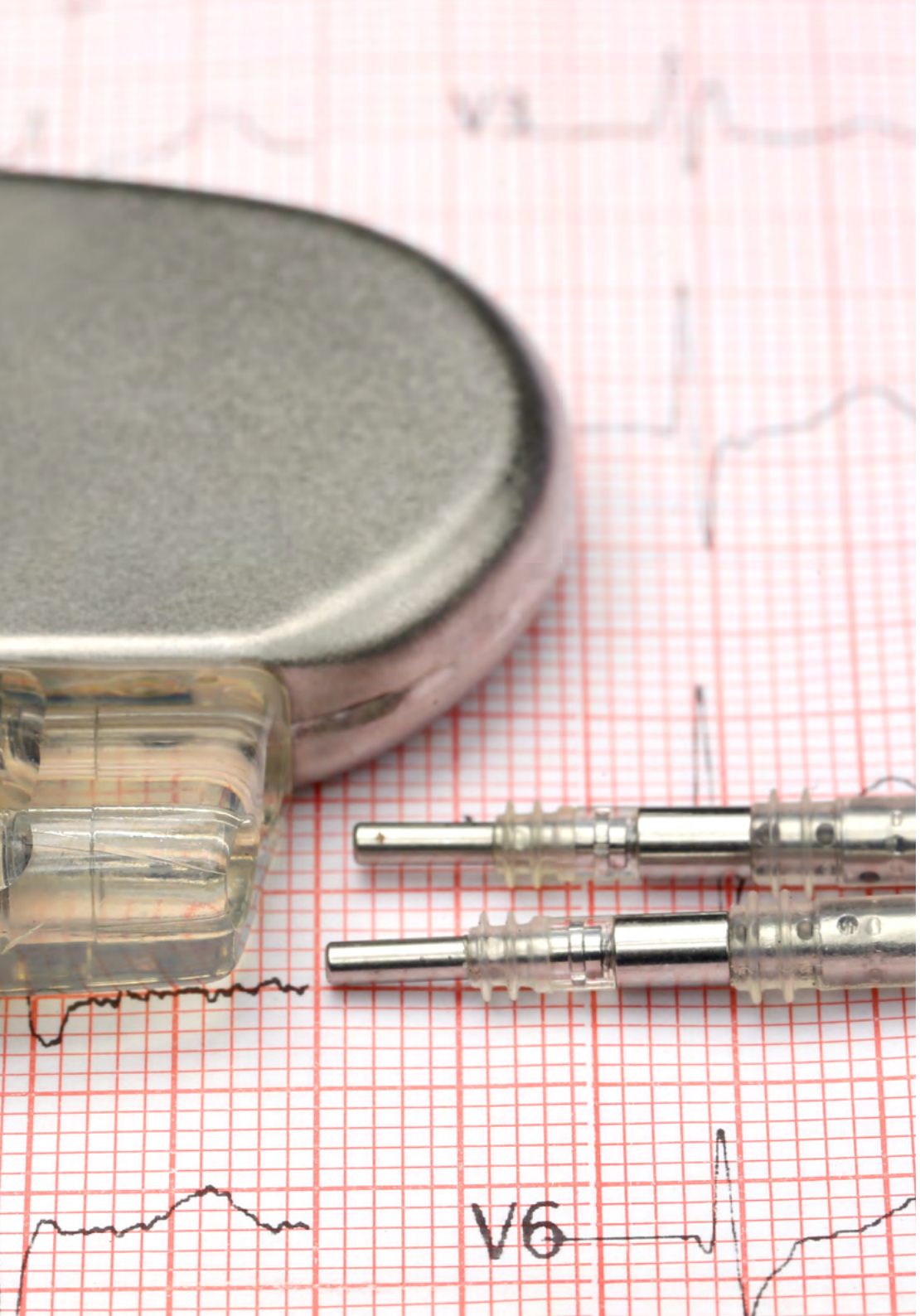
Course

TECH has prestigious specialists for the professional to enhance their knowledge. Therefore, the teaching staff has extensive experience in Imaging Technology in Cardiorespiratory Arrest. Thanks to this, the present Postgraduate Certificate will be characterized by offering the most updated and complete contents of the academic market. Graduates will be highly qualified to face the challenges in a highly competitive field that offers numerous opportunities.

You will be assisted by experts in the field of Imaging Technology in Cardiorespiratory Arrest"

Dr. Antonio Cardenas Cruz

- Head of the Intensive Care Medicine Department, Motril Hospital
- Director of the Clinical Unit of Critical Care and Emergency Management of the Poniente University Hospital
- Institute Director of Continuing Education of the Andalusian Society of Intensive Care Medicine and Coronary Universities
- Training Program Director for Life Support Trainers of the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)
- Training Program Director for Sedation the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)
- Head of Critical Care and Emergency Department, Hospital Universitario de Poniente
- Professor of Medicine
- Degree in Medicine and Surgery from the UGR
- PhD in Medicine and Surgery, UGR
- Specialist in Intensive Care Medicine



Professors

Dr. López Marín, Cristina

- Specialist in Intensive Care Medicine at the Reina Sofia University Hospital
- Specialist in Intensive Care Medicine at Hospital Virgen del Rocío
- Professional Master's Degree in Biostatistics Applied to Health Sciences, University of Seville
- Professional Master's Degree in Intensive Care by Editorial Panamericana
- Intensive Care Medicine Resident Tutor
- Clinical Tutor of students in Medicine

Dr. Del Alba Aparicio, María

- Specialist in Intensive Care Medicine
- Intensive Care Physician at the Hospital de Montilla
- Specialist in Intensive Care Medicine at the Reina Sofia University Hospital
- International Expert in Noninvasive Mechanical Ventilation Methodology
- Expert in Management of Severe Respiratory Infection in Intensive Care Medicine at the International University of Andalusia
- Degree in Medicine from the University of Cordoba

Dr. Bracero Jiménez, Antonio

- Nurse in the Intensive Care Unit at Reina Sofía University Hospital, Córdoba
- Specialist in Critical Patient Transport
- Coordinator and Teacher of modules in the Professional Master's Degree in Emergency Nursing and Emergencies
- Professional Master's Degree in Emergency Nursing, Catastrophes and Humanitarian Aid from the University of Seville

04

Structure and Content

Developed by a renowned teaching staff, this academic itinerary will deal in detail with the impact of ultrasound in the global control of the patient in Cardiorespiratory Arrest. In this sense, the syllabus will delve into the different existing protocols, including the *FEER*. Also, students will be able to make an effective distinction in terms of results between transthoracic echocardiography and transesophageal echocardiography. In addition, the contents will emphasize the usefulness of lung ultrasound for the follow-up of lesions.

TECH provides you with video summaries and clinical cases so that you can easily keep up to date with Imaging Technologies in Cardiorespiratory Arrest"

Module 1. Imaging Technology in Cardiorespiratory Arrest (CRA)

1.1. Indications of Ultrasound Study in CRP
- 1.1.1. Epidemiology
- 1.1.2. Echocardiography
- 1.1.3. Pulmonary Ultrasound

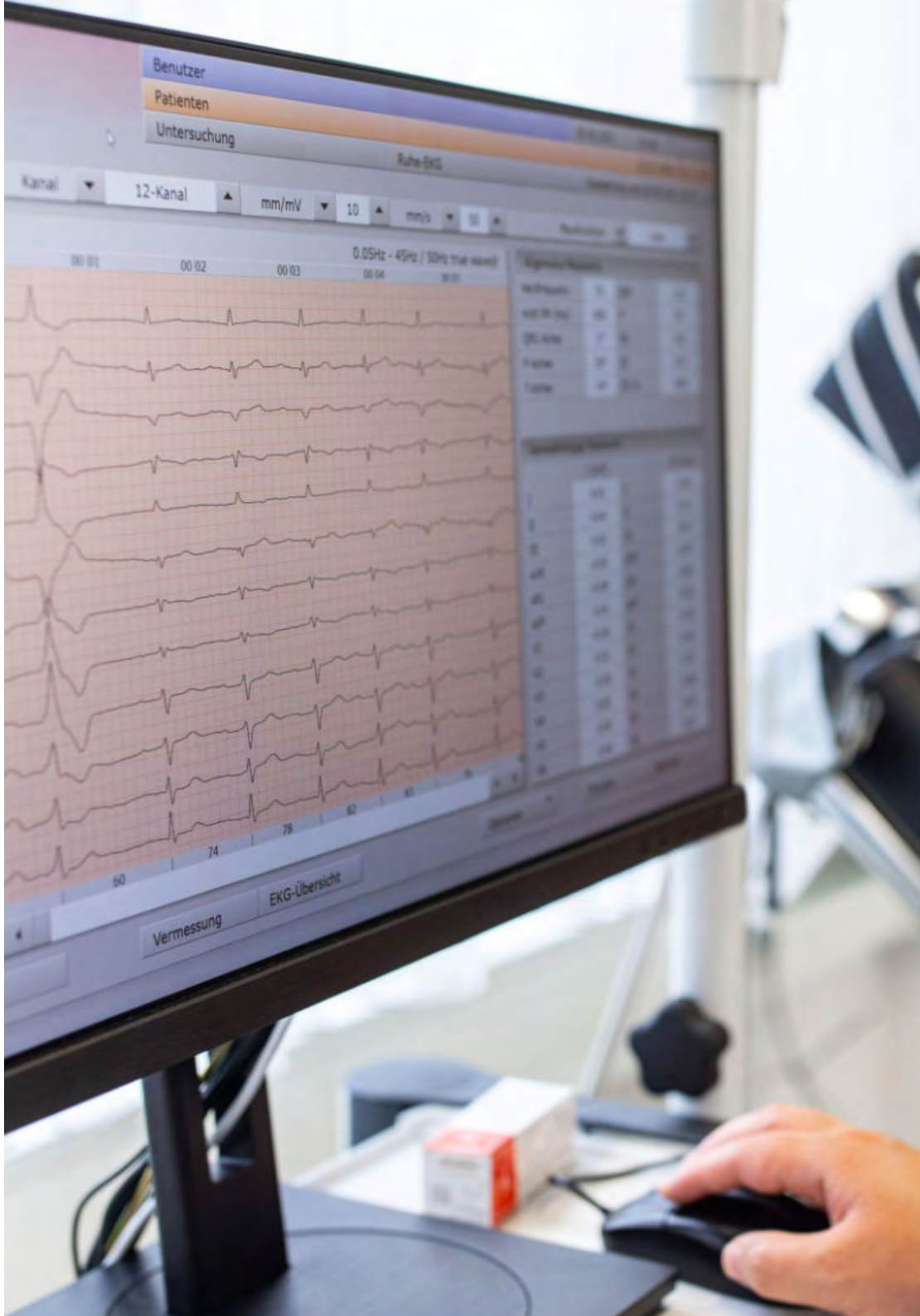
1.2. Use of Intra-PCR Ultrasound: Diagnostic Phase
- 1.2.1. Differential Diagnosis
- 1.2.2. Diagnosis of Potentially Reversible Causes of Cardiac Origin
- 1.2.3. Diagnosis of Pseudo-ESPA

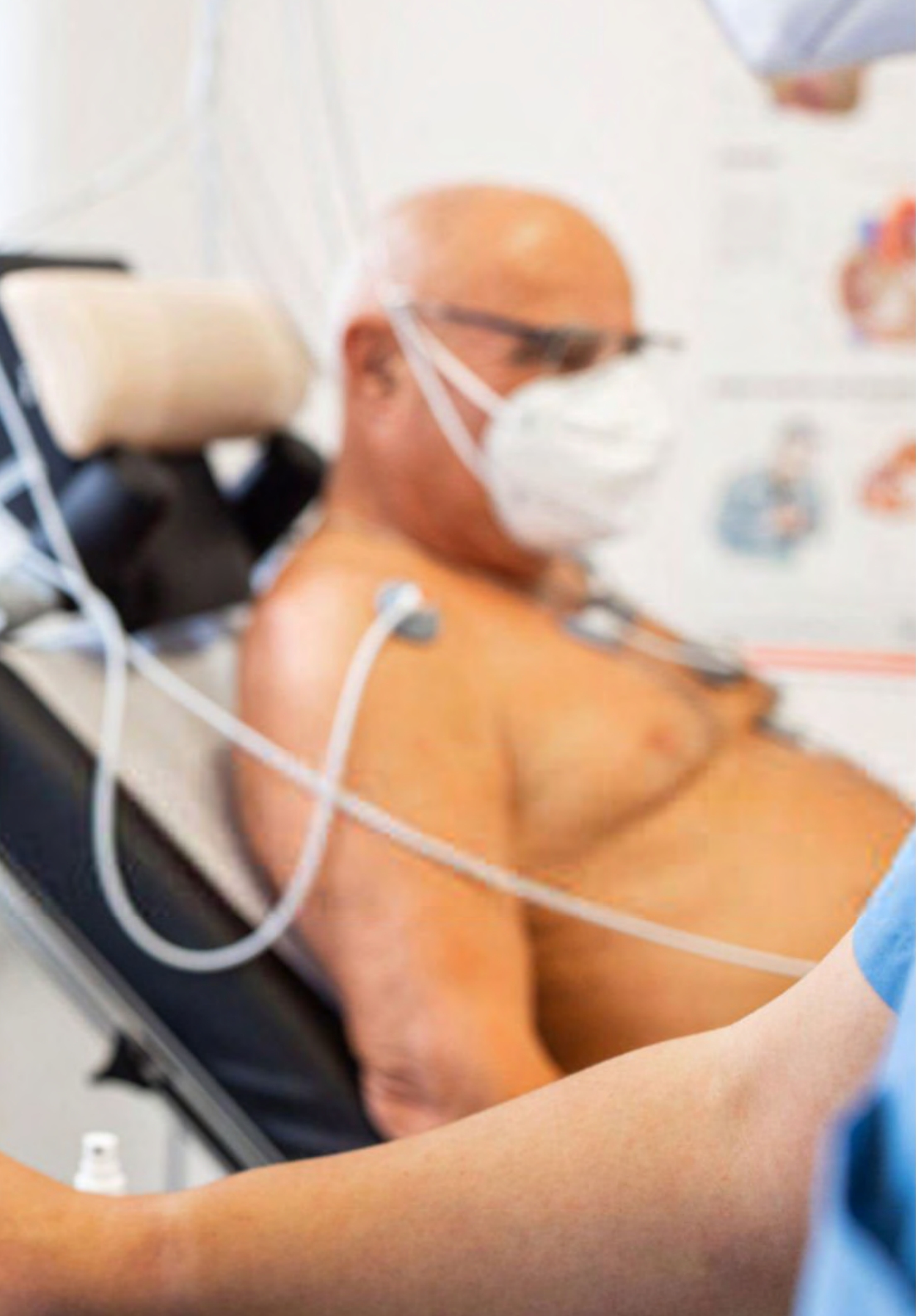
1.3. Use of Intra-PCR Ultrasound: Advanced Diagnostic Phase
- 1.3.1. Diagnosis of Potentially Reversible Causes of Non-Cardiac Origin
- 1.3.2. Assessment of the Normal Position of the TOT
- 1.3.3. Assessment of Recovery of Spontaneous Circulation

1.4. FEER Protocol (*Focused Echocardiographic Evaluation in Resuscitation*) I: Preparation Phase
- 1.4.1. CPR and Preparation of the Equipment
- 1.4.2. Execution and Imaging
- 1.4.3. Resumption of CPR

1.5. FEER Protocol (*Focused Echocardiographic Evaluation in Resuscitation*) II: Evaluation phase
- 1.5.1. Interpretation and Communication
- 1.5.2. Determination of Underlying Causes
- 1.5.3. Verification of Correct Intubation

1.6. FEER Protocol (*Focused Echocardiographic Evaluation in Resuscitation*) III: Implementation Phase
- 1.6.1. Decision-Making Algorithms
- 1.6.2. Ultrasound in the Development of Life Support
- 1.6.3. Advanced Diagnostic and Therapeutic Processes





1.7. FEER Protocol (*Focused Echocardiographic Evaluation in Resuscitation*) IV: Resuscitation Phase or Prognostic Phase
  1.7.1. Post CPR Care
  1.7.2. Resuscitation
  1.7.3. Prognostic Study
1.8. Other Protocols
  1.8.1. *FEEL*
  1.8.2. *CAUSE*
  1.8.3. *E-FAST*
  1.8.4. *RUSH*
  1.8.5. *BLUE*
1.9. Education and Training
  1.9.1. Training Criteria
  1.9.2. Protocols
  1.9.3. Simulation
1.10. Use of Transesophageal Echocardiography in CPR
  1.10.1. Differential Elements with Transthoracic Echocardiography
  1.10.2. Indications
  1.10.3. Technique

A high-intensity program that will allow you to advance quickly and efficiently in your learning"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

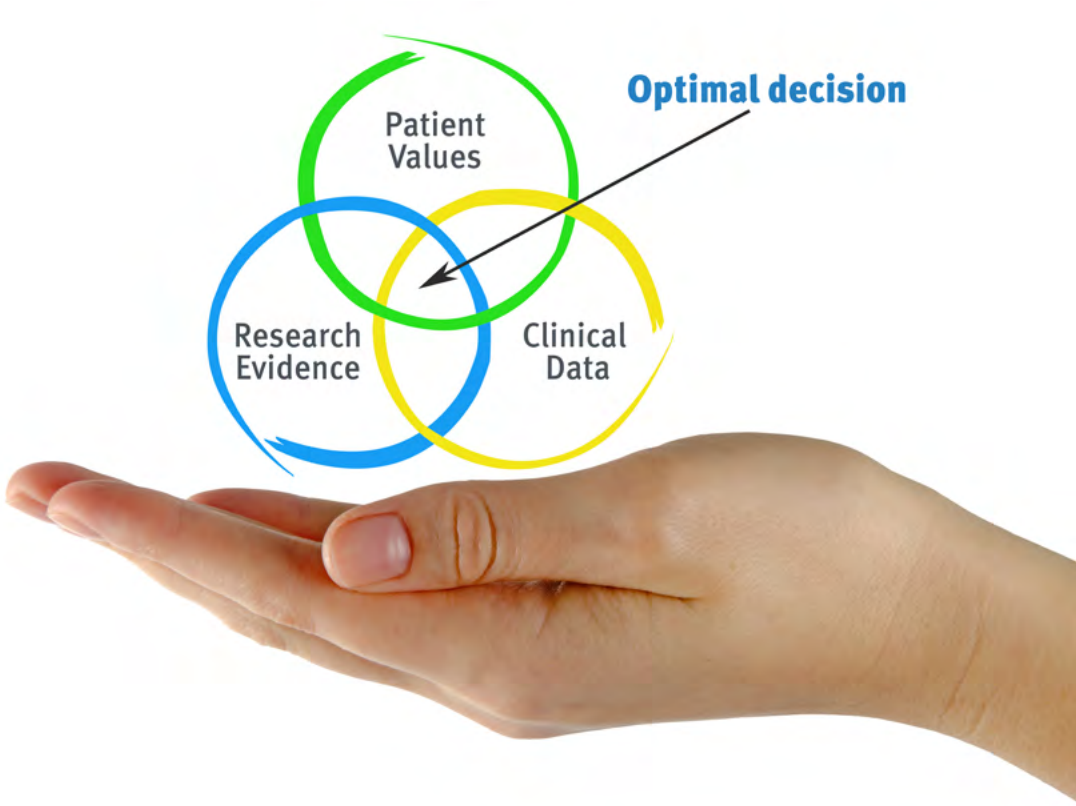
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will 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 power 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 the physician's professional 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:

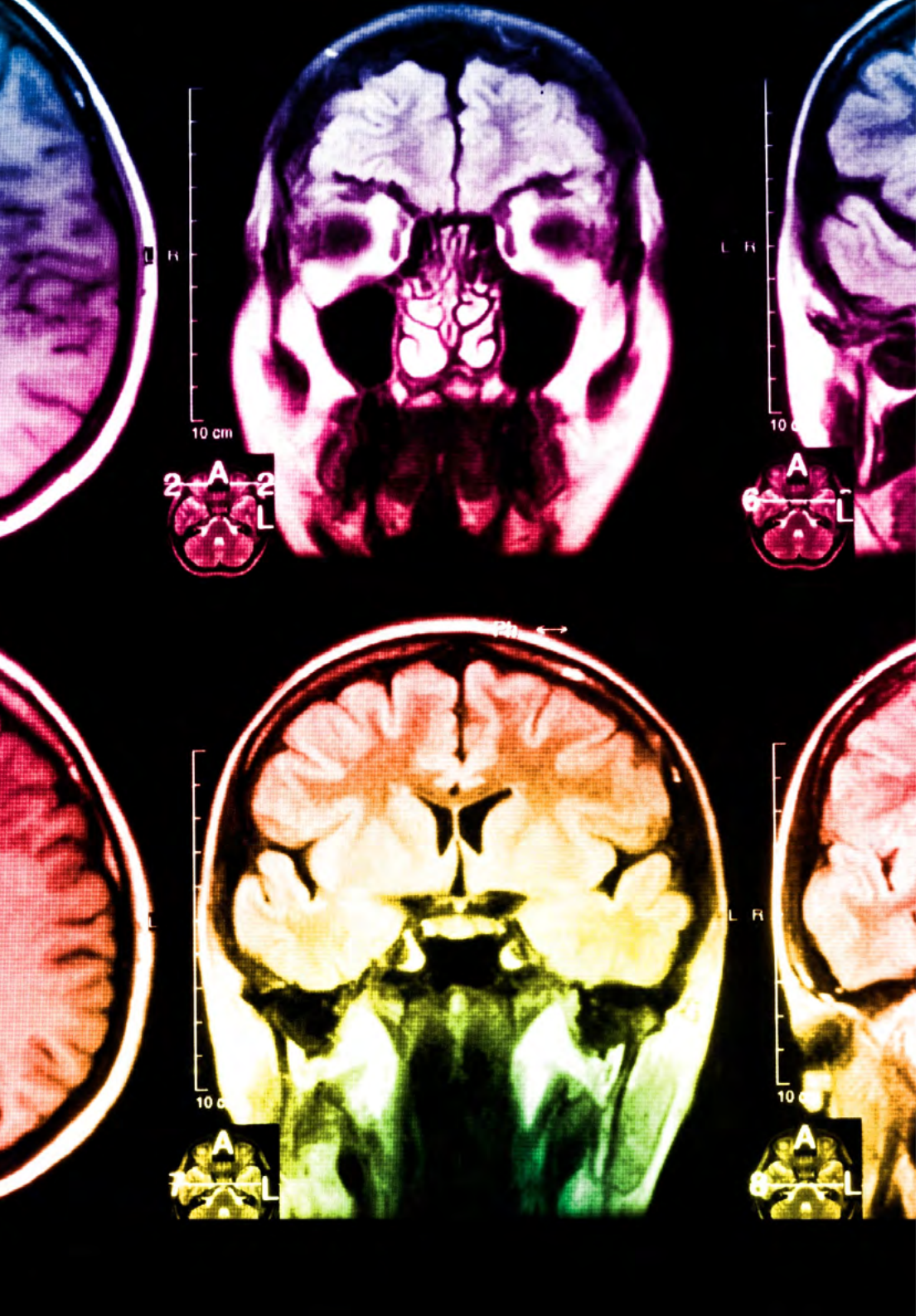
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better 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.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

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

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

This program offers the best educational material, prepared with professionals in mind:

Study Material

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

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

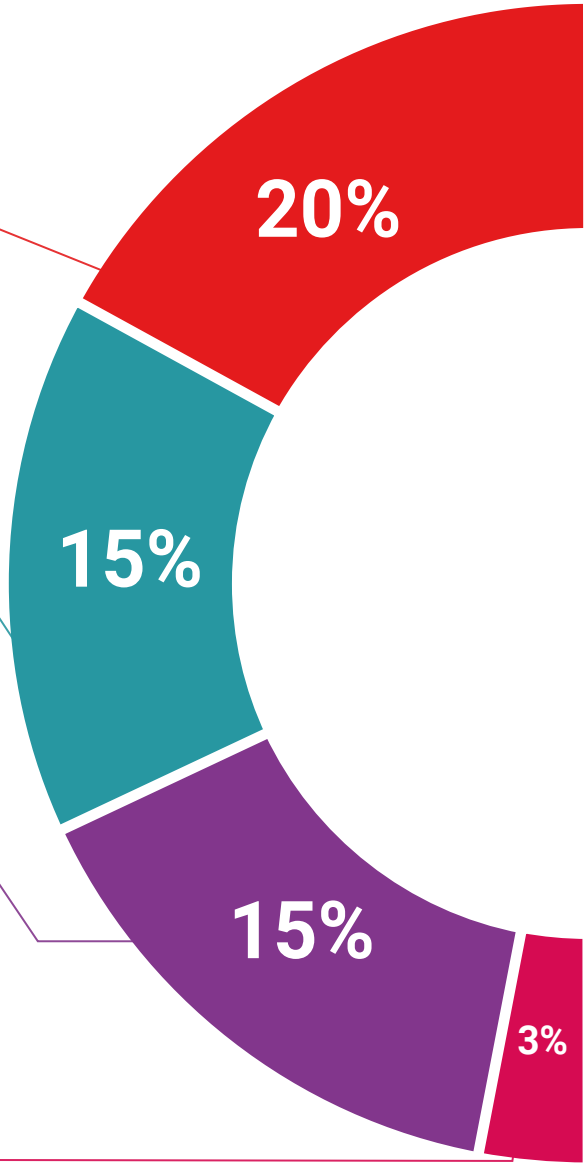
Interactive Summaries

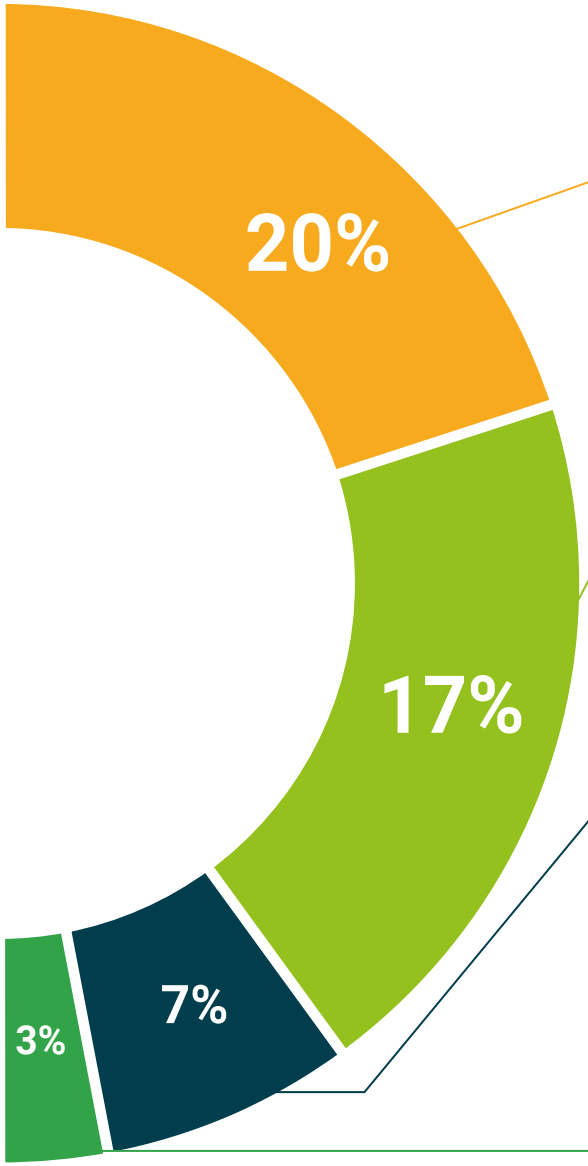
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06

Certificate

The Postgraduate Certificate in Imaging Technology in Cardiorespiratory Arrest guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This **Postgraduate Certificate in Imaging Technology in Cardiorespiratory Arrest** contains the most complete and up-to-date scientific on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The certificate 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 Imaging Technology in Cardiorespiratory Arrest**

Official Nº of Hours: **150 h.**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Imaging Technology in Cardiorespiratory Arrest

This is a qualification awarded by this University, 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

Tere Guevara Navarro

Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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Postgraduate Certificate

Imaging Technology in Cardiorespiratory Arrest

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- Duration: **6 weeks**
- Certificate: **TECH Technological University**
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Postgraduate Certificate

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