



## Postgraduate Certificate

## **Chest Reconstruction**

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/chest-reconstruction

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Certificate





## tech 06 | Introduction

The thoracic region has many vital functions in the body and represents a challenge for surgeons to reconstruct it correctly. In addition, the affectations that may occur in this area of the body could have a congenital, traumatic and/or oncological origin.

Likewise, and due to its nature as a structural support and protector of vital organs, its reconstruction requires the combination of different techniques and surgical times, as well as the use of biocompatible materials to achieve the desired objective.

Therefore, this Postgraduate Certificate in Chest Reconstruction will provide a theoretical review of the surgical anatomy of the structures in the thoracic region, knowing that the recreation of the normal anatomy almost always involves recreating mainly the respiratory and protective function of the lungs, great vessels and heart, as well as, in the case of the female sex, the mammary glandular function.

In the same way, it will also be important for the professional to know how to manage muscle flaps in order to preserve the function of the thorax, and how their surgical technique has been perfected allowing the creation of satisfactory results in the majority of cases.

Everything through a 100% online training that makes it easier to combine studies with the rest of the daily activities in the surgeon's life. Thus, the doctor will only need an electronic device (Smartphone, Tablet, PC) with Internet connection to open up a wide horizon of knowledge that will allow him to position himself as a professional of reference in the sector.

This **Postgraduate Certificate in Chest Reconstruction** includes the most complete and up-to-date scientific program on the market. The most outstanding features of the University Course are:

- Development of more than 80 clinical cases, recorded with POV (Point Of View) systems from different angles, presented by experts in surgery and other specialities. 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.
- Presentation of practical workshops on procedures and techniques.
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist area.
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- Special emphasis on test-based medicine and research methodologies in surgical procedures.
- Content that is accessible from any fixed or portable device with an Internet connection



This Postgraduate Certificate in Chest Reconstruction contains the most complete and up-to-date scientific program on the market"



Thanks to this complete Postgraduate Certificate that TECH has prepared for you, you will acquire the best and most up-to-date training in Chest Reconstruction"

The teaching staff includes a team of healthcare professionals, who bring their experience to this training program, as well as renowned specialists from leading scientific societies.

The multimedia content developed with the latest educational technology will provide the surgeon with situated and contextual learning, i.e., a simulated environment that will provide immersive training program to train in real situations.

Problem-Based Learning underpins this program design, and the surgeon must use it to try and solve the different professional practice situations that arise throughout the Postgraduate Certificate. For this purpose, you will be assisted by an innovative interactive video system created by renowned experts in the field of Reconstructive Plastic Surgery, with extensive teaching experience.

It is the best value for money training program on the market.

Improve your specialized surgical practice with this training that will catapult you to success in your profession.







## tech 10 | Objectives

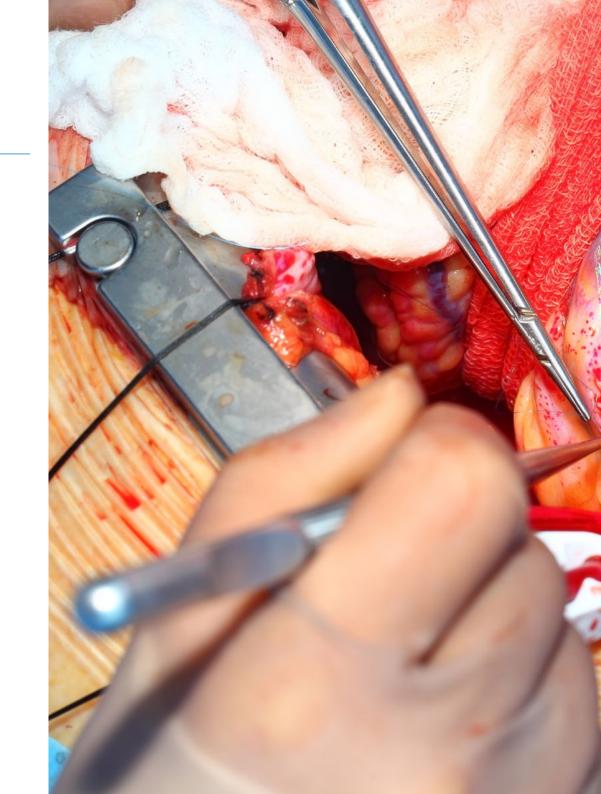


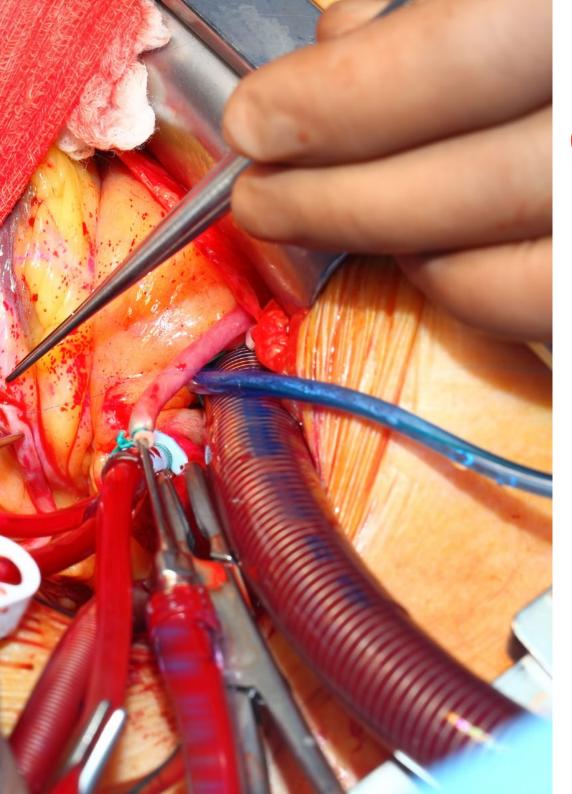
## **General Objectives**

- Analyze the main reconstructive techniques in congenital malformations.
- Study the main thoracic congenital malformations.
- Analyze the anatomy of the thoracic region from a surgical approach.
- Develop breast reconstruction techniques



Seize the moment and take the step to get up to date on the latest developments in Chest Reconstruction and become a prestigious surgeon"





## Objectives | 11 tech



## **Specific Objectives**

- Examine the characteristics of the most frequent congenital syndromes in thoracic reconstruction.
- Compile the reconstructive theoretical bases applicable to thoracic reconstruction.
- Analyze breast surgical anatomy for reconstruction of the thoracic region.
- Identify the most frequent pathologies in reconstruction of the thoracic region.
- Determine the primary steps for breast reconstruction.
- Propose the use of muscle flaps for thoracic and breast reconstruction.
- Establish the possible techniques for chest wall reconstruction.

03 Course Management These materials have been developed by a team of leading professionals in the surgical field, who work in the most important national and international hospitals. Bringing to the program the experience they have gained throughout their careers. Likewise, this great teaching team also includes a series of specialists who complete the contents of the Postgraduate Certificate in an interdisciplinary and transversal way that will help the 154 student to acquire complete knowledge and take into account each and every one of the important factors when intervening in cases of patients requiring chest reconstruction. SpO2 83 A CNAP



#### **International Guest Director**

Peter Henderson, M.D. is a reconstructive surgeon and microsurgeon based in New York City who focuses on breast reconstruction and lymphedema treatment. He is Chief Executive Officer and Director of Surgical Services for Henderson Breast Reconstruction. In addition, he is an Associate Professor of Surgery (Plastic and Reconstructive Surgery) and Director of Research at the Icahn School of Medicine at Mount Sinai.

Dr. Henderson received a Bachelor of Fine Arts degree from Harvard University, a medical degree from Weill Cornell Medical College and an MBA from the Stern School of Business at New York University.

He completed his residencies in general surgery and plastic surgery at NewYork-Presbyterian/Weill Cornell. He then completed a fellowship in reconstructive microsurgery at Memorial Sloan Kettering Cancer Center. In addition, he was Chief of Research in the Laboratory of Bioregenerative Medicine and Surgery during his residency in general surgery.

Through a variety of surgical approaches and techniques, he is committed to helping patients restore, maintain or improve their function and appearance. Dr. Henderson's clinical care is supported by his research and scholarly activities in the field of microsurgery and breast reconstruction.

Dr. Henderson is a Fellow of the American College of Surgeons and a member of many professional societies. He is a recipient of the Dicran Goulian Award for Academic Excellence in Plastic Surgery and the Bush Award for Excellence in Vascular Biology. He has authored or co-authored over 75 peer-reviewed publications and textbook chapters, as well as over 120 research abstracts, and has guest lectured nationally and internationally.



## Dr. Henderson, Peter

- Director of Surgical Services at Henderson Breast Reconstruction
- Director of Research at Icahn School of Medicine at Mount Sinai
- Chief of Research, Laboratory of Bioregenerative Medicine and Surgery at Memorial Sloan Kettering Cancer Center
- M.D. from Weill Cornell Medical College
- Bachelor of Fine Arts from Harvard University
- Bush Award for Excellence in Vascular Biology



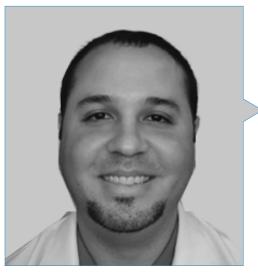
## tech 14 | Course Management

### Management



## Dr. Castro de Rojas, Ligia Irene

- Doctor specialized in Obstetrics and Gynecology
- Professor of Morphophysiology I and II at the Experimental School of Nursing, Faculty of Medicine, Universidad Central de Venezuela.
- Medical School Counselor
- Medical sonographer
- · Resident physician at the Palo Negro outpatient clinic
- · General Practitioner at Policlínica Coromoto



## Dr. Piña Rojas, Juan Luis

- · Plastic and reconstructive surgeon. Maracay Central Hospital
- Secretary of Academic Affairs, 2004-2005 period, Student Center, La Morita branch, Carabobo University.
- · Chief Resident 2012-2014 Postgraduate of Plastic Surgery Maracay's Central Hospital.
- · Academic Teaching Coordinator 2016-2018 postgraduate course in Plastic Surgery, Maracay Central Hospital.
- Postgraduate resident doctor of the 1st level in the department of Surgery at Maracay's central hospital from March 3, 2008 to December 2010. (Position earned by credential competition)
- · Academic Teaching Coordinator 2016-2018 postgraduate course in Plastic Surgery, Maracay Central Hospital.



## Course Management | 15 tech

#### **Professors**

#### Dr. Piña Aponte, Enzo Raúl

- Oral and Maxillofacial Surgeon
- Oral and Maxillofacial Surgeon in Private Clinic
- Postgraduate Professor of Oral and Maxillofacial Surgery UC-IVSS
- Assistant of the Oral and Maxillofacial Surgery Service "Dr. Atilio Perdomo", University Hospital "Dr. Ángel Larralde"; Valencia, Edo. Carabobo.
- Undergraduate Teaching, Subject "Comprehensive Adult Clinic II",
- Rotation of Oral Surgery, 5th year, School of Dentistry, Carabobo University. Valencia, Edo. Carabobo.

#### Dr. Rivas Zambrano, Aura Lorena

- Pediatric Infectious Diseases Specialist
- Medical School. Carabobo University, Venezuela. Promotion position: 2. Magna Cum Laude
- \* Pediatrics Residency Maracay Central Hospital. Carabobo University, Venezuela
- Pediatric Infectious Diseases Residency at the José Manuel de los Ríos Children's Hospital. Venezuela
- Pediatric Infectiologist. Maracay Central Hospital. Venezuela
- Professor of Pediatric Infectious Diseases. Carabobo University. U Venezuela.
- Lecturer in National and Regional Congresses and Conferences



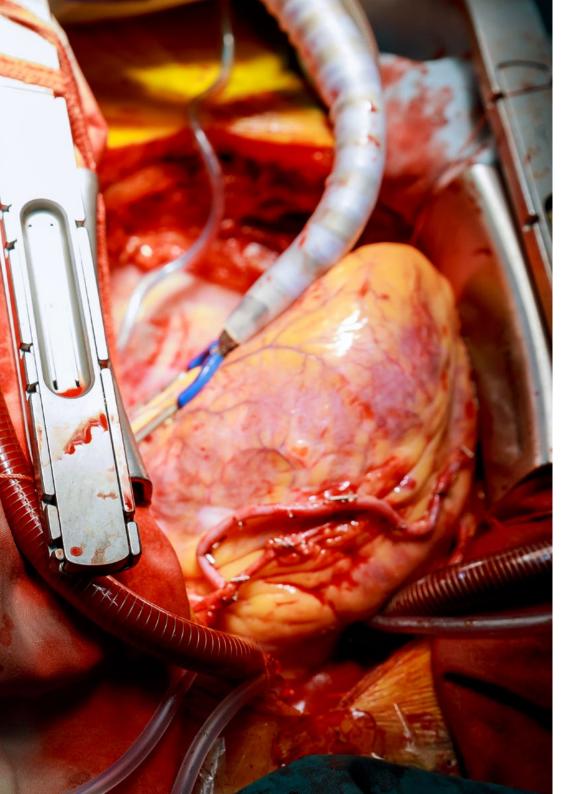


## tech 18 | Structure and Content

#### Module 1. Chest Reconstruction

- 1. 1. Thoracic Surgical Anatomy
  - 1.1.1. Bones
  - 1.1.2. Cartilage
  - 1.1.3. Muscle
  - 1.1.4. Organs
- 1.2. Thoracic Congenital Syndromes
  - 1.2.1. Poland
  - 1.2.2. Jeune
  - 1.2.3. Spondylothoracic Dysplasia
- 1.3. Thoracic Malformations
  - 1.3.1. Pectumexcavatum
  - 1.3.2. Pectumcarinatum
  - 1.3.3. Sternals
  - 1.3.4. Sacks
- 1.4. Breast Reconstruction
  - 1.4.1. Breast Surgical Anatomy
  - 1.4.2. Breast Cancer
  - 1.4.3. Oncologic Reconstruction
    - 1.4.3.1. Partial
    - 1.4.3.2. Total
  - 1.4.4. Reconstruction With Prosthetic Material
    - 1.4.4.1. Breast Implant
    - 1.4.4.2. Tissue Expanders
    - 1.4.4.3. Mesh
- 1.5. Thoracic Reconstruction with Latissimus Dorsi Flap
  - 1.5.1. Surgical Anatomy
  - 1.5.2. Surgical Technique.
  - 1.5.3. Uses
  - 1.5.4. Complications

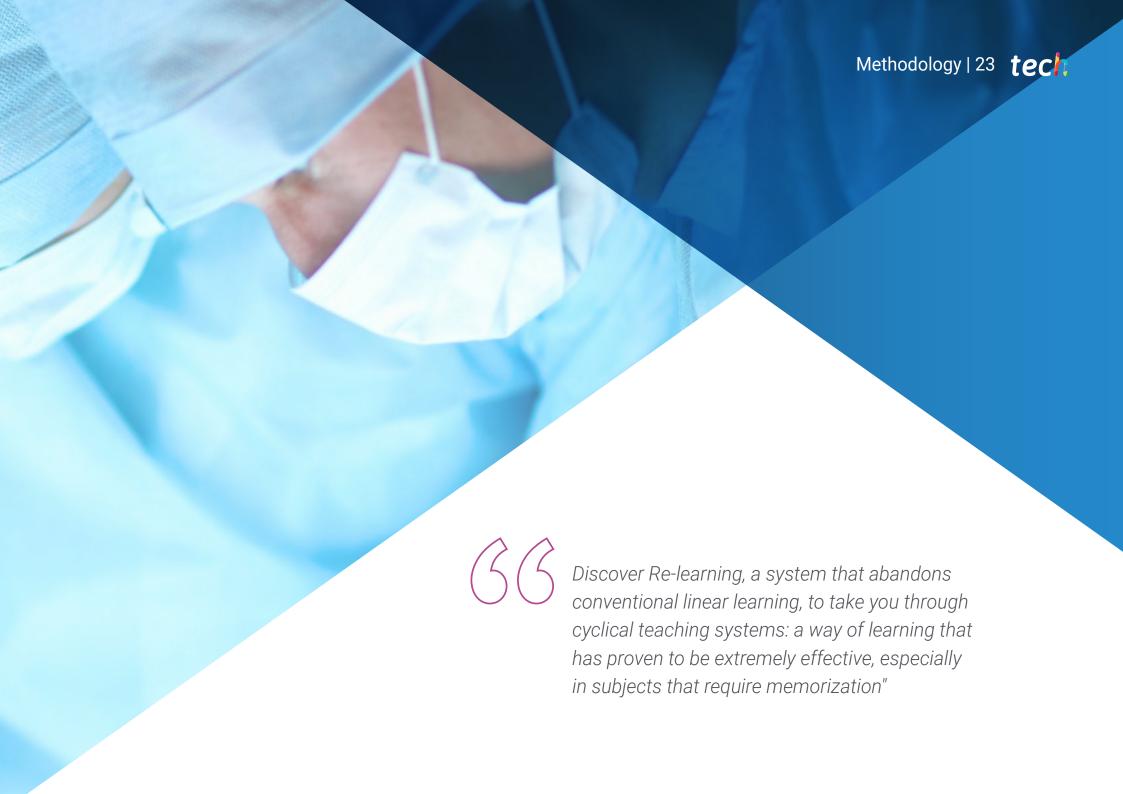




## Structure and Content | 19 tech

- 1.6. Thoracic Reconstruction with Transverse Rectus Abdominis Muscle Flap TRAM
  - 1.6.1. Surgical Anatomy
  - 1.6.2. Surgical Technique.
  - 1.6.3. Uses
  - 1.6.4. Complications
- 1.7. Nipple Areola Complex Reconstruction
  - 1.7.1. Surgical Anatomy
  - 1.7.2. Surgical Techniques
  - 1.7.3. Complications
- 1.8. Thoracic Reconstruction with Free Flaps
  - 1.8.1. Indications
  - 1.8.2. Contraindications
  - 1.8.3. Techniques
- 1.9. Thoracic Reconstruction with Latissimus Dorsi Flap
  - 1.9.1. Surgical Anatomy
  - 1.9.2. Surgical Technique.
  - 1.9.3. Uses
  - 1.9.4. Complications
- 1.10. Rehabilitation in Chest Reconstructive Surgery
  - 1.10.1. Respiratory Therapy
  - 1.10.2. Use Of Girdles And Bandages
  - 1.10.3. Lymphatic Drainage
  - 1.10.4. Use of Ultrasound





## tech 24 | Methodology

#### 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:

- 1. 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.
- 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.





## **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-theart software to facilitate immersive learning.



## Methodology | 27 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.

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**

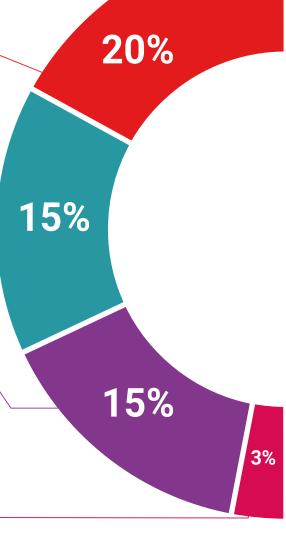
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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.

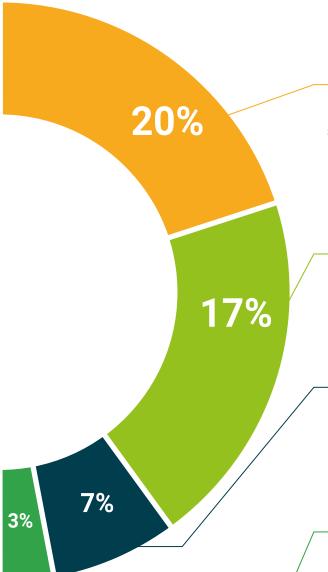
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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.





#### **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.







## tech 30 | Certificate

This **Postgraduate Certificate in Chest Reconstruction** includes the most complete and up-to-date scientific program 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 course of this program does not qualify, in any case, to perform the surgical techniques and procedures described in this syllabus.

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

Title: Postgraduate Certificate in Chest Reconstruction

Official N° of Hours: 150 h.



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

ualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each co

ue TECH Code: AFWORD23S techtitute.com/certi

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



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