



# Postgraduate Diploma Reconstructive Plastic

Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

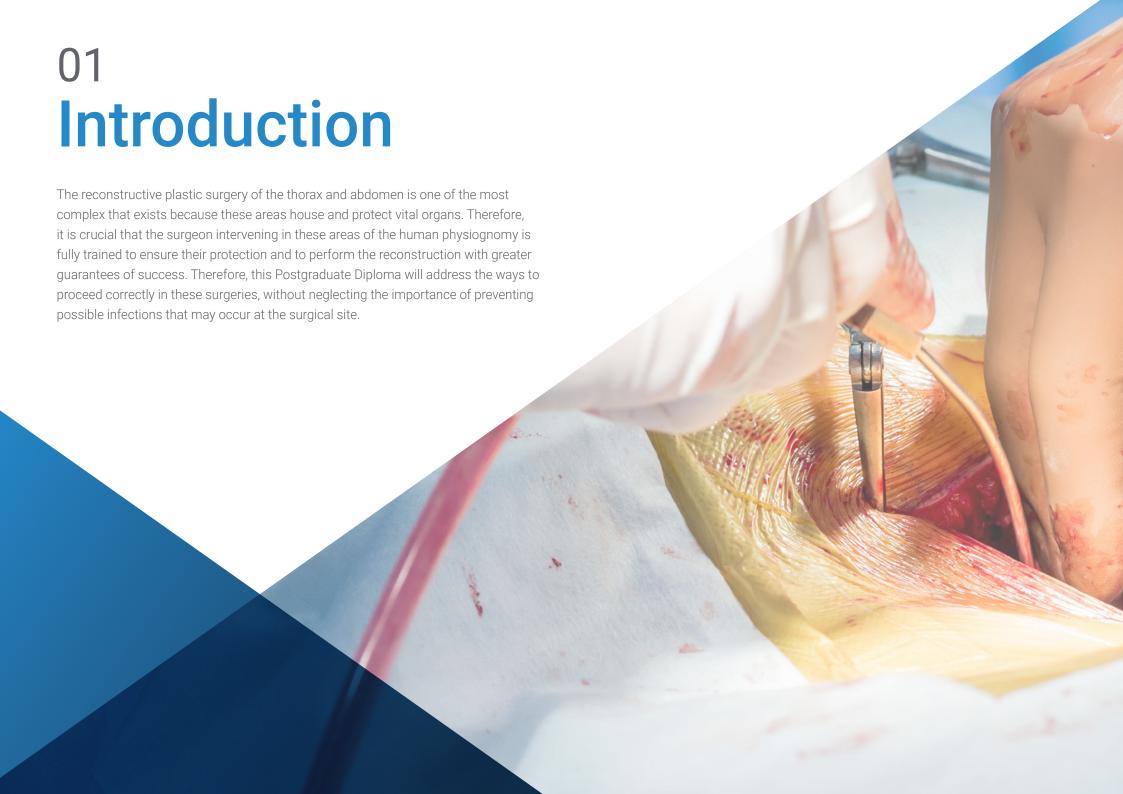
Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-reconstructive-plastic-surgery-thorax-abdomen-surgical-site-infections

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### tech 06 | Introduction

Reconstructive Plastic Surgery of the Thorax and Abdomen has undergone a spectacular development in recent years. This branch of Plastic Surgery deals with the maintenance of the integrity of the abdominal wall, guaranteeing the performance of normal activities in a natural way. However, if it were to be damaged, it would interfere with basic elementary functions, so its reconstruction should be focused on avoiding their collapse.

Due to the management of intra-abdominal contents, it is vital that the surgeon has knowledge of abdominal physiology in order to plan its repair, as well as the irrigation of the abdominal wall, which will allow the use of muscle and muscle-cutaneous flaps for the safe closure of defects.

Likewise, this Postgraduate Diploma will address the main pathologies that cause deterioration of the abdominal wall, as well as the main flaps for its repair, which even today remains one of the most complex areas to restore surgically.

In the same way, the reconstruction of the thorax will be approached by making a theoretical review of the surgical anatomy of the structures of 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.

Finally, the possible infections that can occur at the surgical site will be discussed in depth, as well as the risk factors involved, which can be divided into modifiable or non-modifiable (age, comorbidity, frailty, obesity, among others). Upon them, the surgeon can help through pharmacological and non-pharmacological measures to reduce the bacterial contamination of the surgical field to a level controllable by the body's defenses.

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 Diploma in Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- 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
- Algorithm-based interactive learning system for decision-making in the presented clinical situations
- Action protocols and clinical practice guidelines, where to disseminate the most important developments in the specialty
- 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 Diploma in Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections contains the most comprehensive and up-to-date scientific program on the market"



This Postgraduate Diploma will be one of the best investments you will make in training for two reasons: you will obtain a degree from the first private educational institution in Spain, TECH, and you will acquire the best and most updated training in Reconstructive Plastic Surgery of the Thorax and Abdomen"

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.

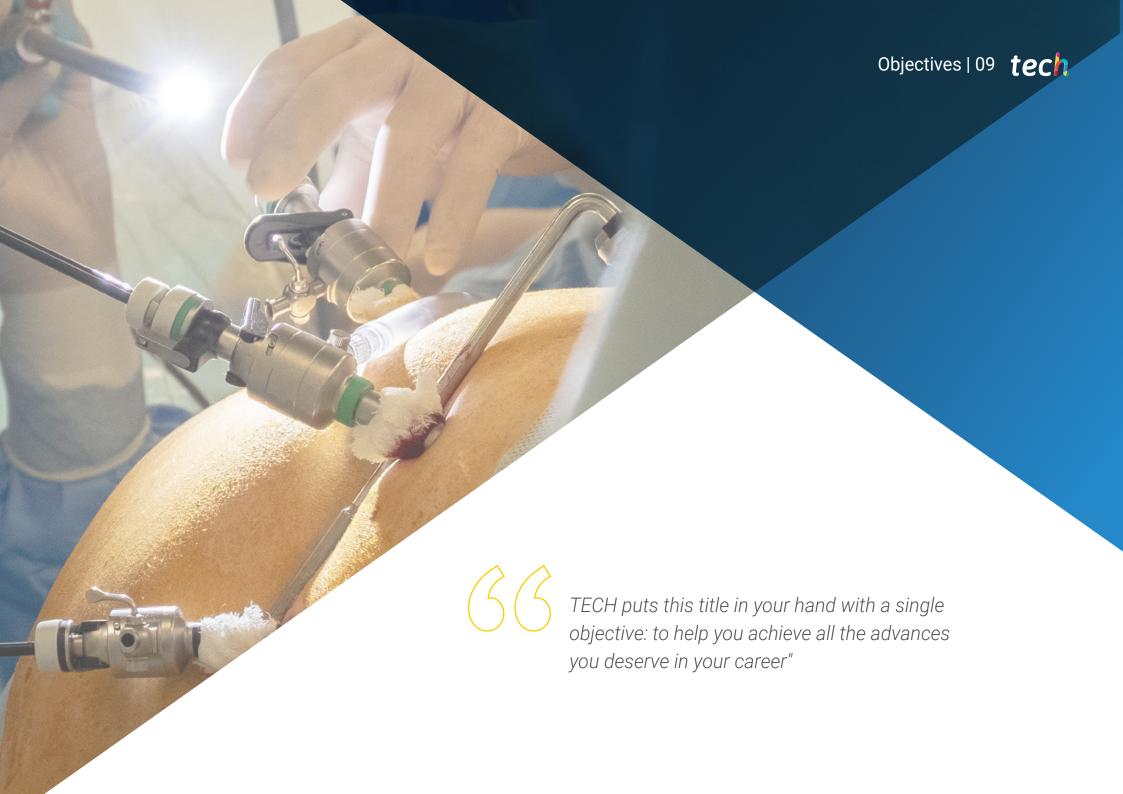
This program is designed around Problem Based Learning, whereby the surgeon must try to solve the different professional practice situations that arise during the course. For this purpose, you will be assisted by an innovative interactive video system created by renowned experts in the field of Reconstructive Plastic Surgery, with extensive teaching experience.

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

Improve your surgical practice with this specialized 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
- Analyze the physiological implications affecting abdominal reconstruction
- Approach the anatomy of the region from a surgical approach
- Compile the main flaps and their uses in abdominal wall reconstruction
- Determine the most common causes of pathologies that require the use of reconstructive surgery
- Analyze surgical site infections
- Identify current predisposing factors in surgical site infections
- Compile preventive measures for surgical site infections
- Propose the adequate management of surgical site infections





### **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
- Develop criteria for the use of reconstructive techniques in the abdominal wall
- Demonstrate the use of synthetic material for abdominal wall reconstruction
- Establish steps for planning abdominal wall repair
- Propose useful techniques for the reconstruction of the abdominal wall
- Introduce the anatomical basis for the choice of abdominal flaps
- Specify the importance of the initial choice of the correct reconstructive technique
- Identify factors affecting the success of the reconstructive option
- Develop current aspects of microbiology applied to surgical site infections

- Analyze the pathophysiological aspects and classification of surgical site infections
- Identify risk factors and severity in surgical site infections
- Compile effective preoperative, operative and postoperative preventive measures
- Establishing antibiotic prophylaxis and its main aspects
- Generate strategies for pharmacological and surgical management of SSIs
- Examine the most frequent infections associated with the most commonly used materials in reconstructive surgery



Seize the moment and take the step to catch up on the latest developments in Thoracic and Abdominal Reconstructive Plastic Surgery"





#### **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.

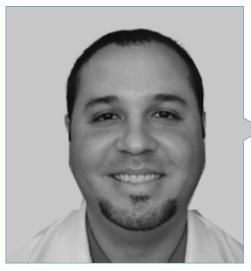


### Dr. Henderson, Peter

- 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



### Management



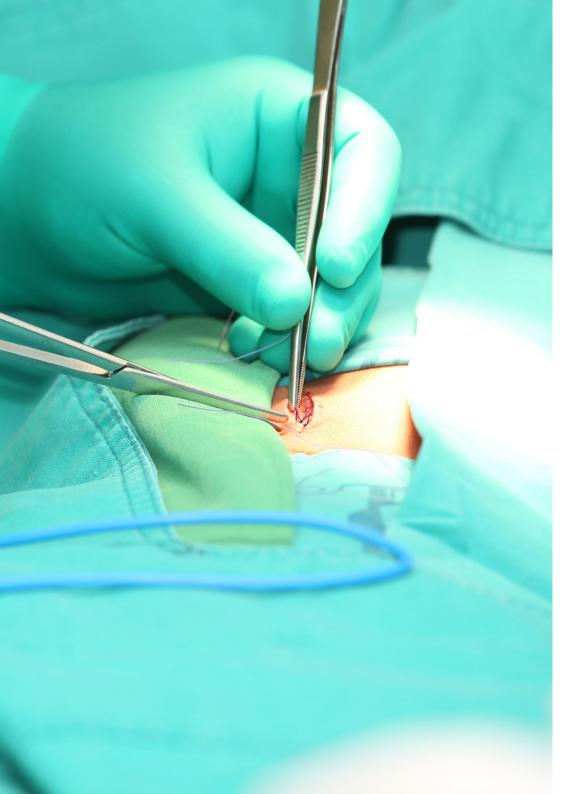
### Dr. Piña Rojas, Juan Luis

- Plastic and reconstructive surgeon. Maracay Central Hospital
- Titular Secretary for Academic Affairs, period 2004-2005, University of Carabobo student center, La Morita headquarters
- Chief of residents 2012-2014 Postgraduate in Plastic Surgery Hospital Central de Maracay
- Academic teaching coordinator 2016-2018 postgraduate of Plastic Surgery Hospital Central de Maracay
- Postgraduate resident physician of the 1st level in the department of Surgery of the central hospital of Maracay from March 3, 2008 to December 2010. (Position won by credentialing contest)
- Academic teaching coordinator 2016-2018 postgraduate of Plastic Surgery Hospital Central de Maracay



### Dra. Castro de Rojas, Ligia Irene

- Specialist in Gynecology and Obstetrics
- Professor of Morphophysiology I and II at the Experimental School of Nursing of the Faculty of Medicine of the Central University of Venezuela
- Counselor of the School of Medicine
- Sonographer doctor
- Resident doctor in Palo Negro outpatient clinic
- General Physician at Coromoto Polyclinic



### Course Management | 17 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 at Maracay HospitalCentral de Maracay. 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

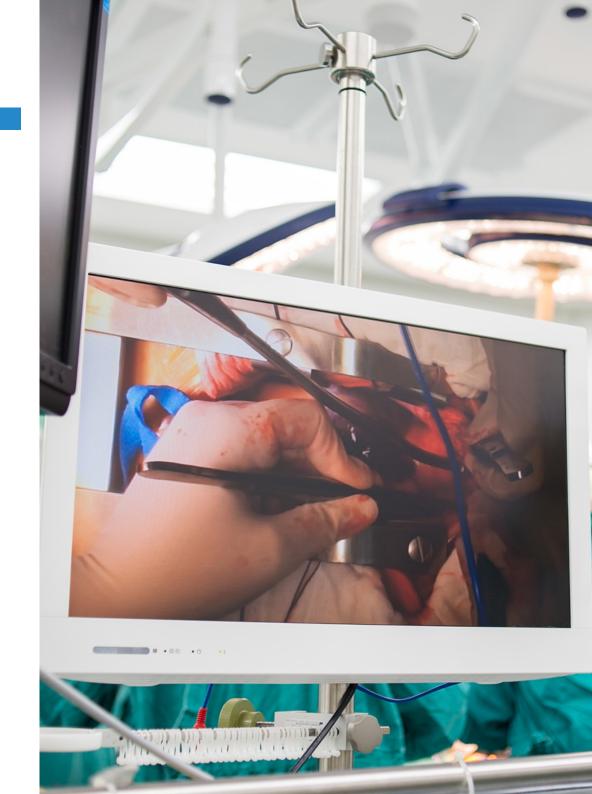




### tech 20 | Structure and Content

### Module 1. Chest Reconstruction

- 1.1. Thoracic Surgical Anatomy
  - 1.1. 1. Bones
  - 1.1. 2. Cartilages
  - 1.1.3. Muscles
  - 1.1. 4. Organs
- 1.2. Thoracic Congenital Syndromes
  - 1.2.1. Poland
  - 1.2.2. Jeune
  - 1.2.3. Spondylothoracic Displasia
- 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



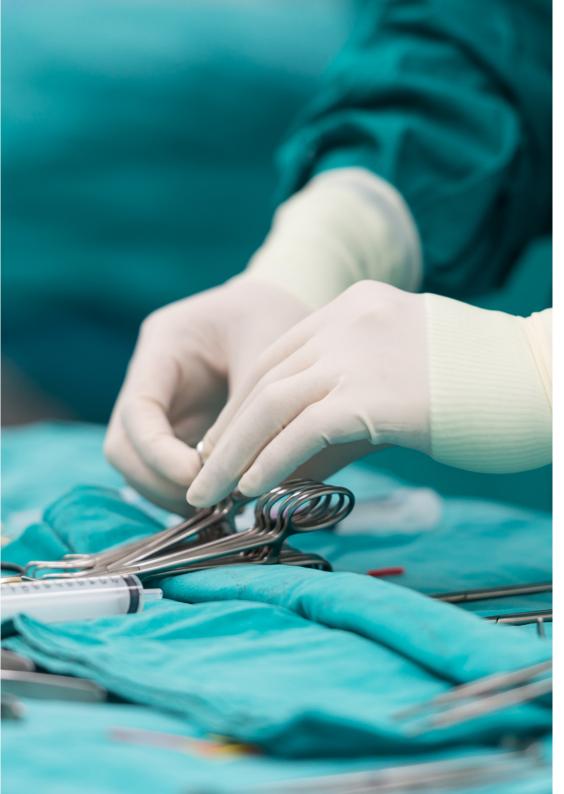
- 1.5. Thoracic Reconstruction with Latissimus Dorsi Flap
  - 1.5.1. Surgical Anatomy
  - 1.5.2. Surgical Technique
  - 1.5.3. Uses
  - 1.5.4. Complications
- 1.6. Thoracic Reconstruction with Transverse Rectus Abdominis Muscle Flap TRAM
  - 1.6.1. Surgical Anatomy
  - 1.6.2. Surgical Technique
  - 1.6.3. 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

### Module 2. Abdominal Wall Reconstruction

- 2.1. Abdominal Cavity Physiology
  - 2.1.1. Concepts
  - 2.1.2. Theoretical Basis
  - 2.1.3. Update
- 2.2. Surgical Anatomy of the Abdominal Wall
  - 2.2.1. Musculature
  - 2.2.2. Irrigation
  - 2.2.3. Innervation
- 2.3. Abdominal Wall Defects
  - 2.3.1. Congenital
  - 2.3.2. Acquired
- 2.4. Abdominal Wall Pathology
  - 2.4.1. Traumatic
  - 2.4.2. Tumorous
- 2.5. Use of Synthetic Material for Abdominal Wall Reconstruction
  - 2.5.1. Types
  - 2.5.2. Indications
  - 2.5.3. Complications
- 2.6. Rectus Abdominal Wall Reconstruction with Rectus Abdominal Flap
  - 2.6.1. Surgical Anatomy
  - 2.6.2. Surgical Technique
  - 2.6.3. Uses
- 2.7. Rectus Abdominal Wall Reconstruction with Rectus Abdominal Flap
  - 2.7.1. Surgical Anatomy
  - 2.7.2. Surgical Technique
  - 2.7.3. Uses

## tech 22 | Structure and Content

2.8.		Abdominal Wall Reconstruction with Rectus Abdominal Flap	3.3.	3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -
	2.8.1.			3.3.1. Updated definitions and classifications
	2.8.2.	Tensor Fascia Lata		3.3.1.1. Surveillance of ISQ and risk indexes
2.9.	Rehabilitation in Abdomen Reconstructive Surgery			3.3.2. Risk factors
	2.9.1.			3.3.2.1. Endogenous or non-modifiable
	2.9.2.	Lymphatic Drainage		3.3.2.2. Exogenous or modifiable
	2.9.3.	Use of Ultrasound		3.3.3. Severity classification of SSI
2.10.	Dermol	lipectomies as an Associated Procedure in Abdominal Wall Reconstruction		3.3.3.1. Asepsia score
	2.10.1. Types		3.4.	Effectiveness of preoperative surgical site infection prevention measures:
	2.10.2.	Clinical Cases		3.4.1. Hand Hygiene
	2.10.3.	Surgical Options		3.4.2. Decontamination
Mad	ula 2 (	Purainal Cita Infantiana in Daganatruativa Curgary		3.4.3. dressing, handling and movement in the surgical area
IVIOU	ule 3.	Surgical Site Infections in Reconstructive Surgery	3.5.	Effectiveness of intraoperative measures for surgical site prevention
3.1.	Applied	d microbiology		3.5.1. Non-parenteral antimicrobial prophylaxis
	3.1.1.	Microorganisms of the host's normal flora		3.5.2. Appropriate control and accepted glycemia limits
	3.1.2.	Differences between colonization and infection		3.5.3. Body temperature optimization
		3.1.2.1. Pathogenesis of microorganisms involved in infection		3.5.5. Oxygenation
		3.1.2.2. Biofilm Paper		3.5.5. Antiseptic prophylaxis
	3.1.3.	Identification of the causal microorganism		3.5.6. Prosthetic arthroplasty
		3.1.3.1. Sample collection and transfer		3.5.2.6.1. Risk vs. benefits of blood transfusions
		3.1.3.2. Identification of typical and atypical microorganisms		3.5.2.6.2. Corticosteroidintraarticular
		3.1.3.3. Evaluation of antibiogram and resistance patterns		3.5.2.6.3. Anticoagulation
3.2.	Inflamr	matory and immune response factors in the surgical patient		3.5.2.6.5. Anti-biofilm measures
	3.2.1.	Updating of concepts	3.6.	Postoperative measures to prevent infection
		3.2.1.1. Cellular mechanisms of the inflammatory response		3.6.1. Wound care
		3.2.1.2. Adequacy and dysregulation of the immune-inflammatory		3.6.2. Antimicrobial dressings
		response		3.6.3. Surgical cleaning of infected surgical sites
	3.2.2.	Utility of the inflammatory response in the evaluation of the surgical	3.7.	Antibiotic Prophylaxis
	0.00	Main parameters of the inflammatory response		3.7.1. Trends in microbiology
	3.2.3.			3.7.1.1. Colonization and resistance
		3.2.3.1. Biomarkers in clinical practice		3.7.2. Allergy to beta-lactams
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### Structure and Content | 23 tech

- 3.7.3. Administration updates 3.7.3.1. Start time
- 3.7.3.2. Dosage
- 3.7.3.3. Duration
- 3.7.3.4. Redosification
- 3.8. Antimicrobial treatment and control of focus in the surgical patient
  - 3.8.1. Treatment duration
  - 3.8.2. Empirical regimen according to surgical site and type of infection 3.8.2.1. Large-positive spectrum, types of antimicrobial agents 3.8.2.2. Large negative spectrum of antimicrobial types
  - 3.8.3. Surgical control of the focus 3.8.3.1. Relevance of percutaneous and endoscopic management 3.8.3.2. Surgical focus control maneuvers
- Surgical site infection according to procedures
  - 3.9.1. Face and neck surgeries
  - 3.9.2. Breast surgeries
  - 3.9.3. Skin and integument surgeries
  - 3.9.9. Limb arthroplasties
- 3.10. Surgical site infection based on prosthetic biomaterials
  - 3.10.1. Metals
  - 3.10.2. Ceramics
  - 3.10.3. Polymers



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





### tech 26 | 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:

- 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-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.

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**

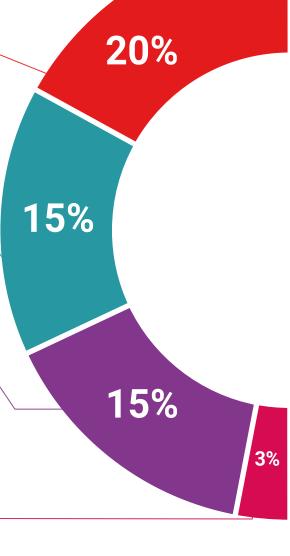
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want



#### **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



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

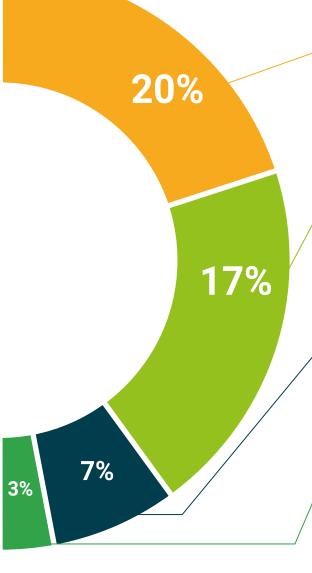
Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions



#### **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









### tech 32 | Certificate

This Postgraduate Diploma in Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections contains the most comprehensive and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** 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.

This certificate issued by **TECH Technological University** will specify the qualification obtained though the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Diploma in Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections

**ECTS: 18** 

Official Number of Hours: 450



health

guarantee

technological
university

## Postgraduate Diploma

Reconstructive Plastic Surgery of the Thorax and Abdomen. Surgical Site Infections

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

