



## Postgraduate Diploma

Duodenopancreatic Trauma and Pathology

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 18 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-duodenopancreatic-trauma-pathology

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### tech 06 | Introduction

According to the most recent international medical records, 1 in every 100 to 200 people in the world is affected by Celiac Disease. These numbers not only show an exponential increase in the condition, but have positioned it as one of the duodenopancreatic pathologies with the highest health incidence. On the other hand, the diagnosis of the ailments included in this group is extremely complex since the symptoms often overlap and make it difficult to determine severe trauma with ease. Therefore, it is imperative for gastroenterologists and physicians in general to keep abreast of state-of-the-art techniques for the evaluation and treatment of these conditions.

In this context, TECH will offer its students the opportunity to complete an intensive 6-month academic itinerary. The program will update its graduates in the recognition and management of anatomical variations relevant to surgical interventions, preparing them to deal with diverse clinical situations. In addition, the agenda will include further training in the implementation of diagnostic techniques such as computed tomography and ultrasound. In turn, professionals will address the identification and management of possible complications associated with pancreatic diseases, acquiring a greater ability to prevent and effectively address these complications in their daily practice.

In addition, this Postgraduate Diploma in Trauma and Duodenopancreatic Pathology has a disruptive methodology that will provide flexibility and accessibility to all students. In a 100% online format, the curriculum can be reviewed and analyzed by enrolled physicians from any location, adapting to their schedules and work responsibilities. Moreover, the Relearning system, based on the repetition of key concepts, will reinforce the deep assimilation of knowledge, ensuring that participants not only acquire new skills, but also have a holistic view of the challenges of the healthcare sector.

This **Postgraduate Diploma in Duodenopancreatic Trauma and Pathology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Trauma and Duodenopancreatic Pathology
- 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



Take advantage of this academic opportunity to get up to date on the latest trends in traumatic injury management"



Get updated about online anatomical dissection with a learning system that follows the highest international quality standards"

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.

Get up to date in Laparoscopic Liver Surgery at the best digital university in the world according to Forbes.

You will have access to a learning system based on repetition, with a natural and progressive teaching throughout the entire syllabus: Relearning.



# 02 Objectives

The main objective of this academic itinerary is to keep graduates updated in contemporary surgical techniques, focusing on the planning and precise execution of hepatic interventions. Throughout the program, students will be immersed in a curriculum designed to equip them with the necessary skills in the field of Trauma and Duodenopancreatic Pathology. In this regard, this comprehensive approach will also equip healthcare professionals with the most advanced surgical skills, ensuring specialized and effective care in complex clinical situations.



### tech 10 | Objectives



### **General Objectives**

- Develop a thorough understanding of the normal anatomy of the liver, including vascular distribution, hepatic segmentation, and anatomical relationships
- Establish a solid foundation in normal liver physiology to facilitate identification of pathological deviations
- Establish a thorough understanding of the pathophysiology of benign liver diseases, including steatosis, chronic hepatitis, and other conditions
- Improve ethical decision making in the selection and application of diagnostic procedures, considering patient safety and well-being
- Stimulate interest in research on pancreatic diseases and promote constant updating on therapeutic and technological advances



You will achieve your goals thanks to TECH's didactic tools and its disruptive 100% online methodology"





### Module 1. Surgical anatomy of the liver

- Recognize and manage anatomical variations relevant to surgical interventions, preparing participants for diverse clinical situations
- Integrate anatomical knowledge with contemporary surgical techniques, facilitating accurate planning and execution of liver interventions
- Acquire specific skills for laparoscopic liver surgery, considering the anatomy in a minimally invasive environment
- Encourage active participation through practice in online anatomical dissection, case studies and interactive discussions

### Module 2. Hepatic and duodecenopancreatic trauma.

- Establish a solid understanding of the anatomy and physiology of the hepatic, duodenal and pancreatic region, particularly in the context of traumatic injuries
- Develop the ability to identify and classify the different mechanisms of injury affecting the liver, duodenum and pancreas in traumatic situations
- Become familiar with emergency diagnostic techniques, such as computed tomography and ultrasound, for rapid and accurate assessment of traumatic injuries
- Acquire specific surgical skills for the management of traumatic injuries, including hemostasis techniques and repair of compromised organs
- Develop skills to anticipate and manage complications that may arise during and after treatment of traumatic injuries in these areas
- Improve reconstruction techniques in complex lesions, particularly in situations involving the duodenum and pancreas

#### Module 3. Pancreatic Disease

- Establish a thorough understanding of the normal pathophysiology of the pancreas and the imbalances that lead to diseases such as acute and chronic pancreatitis
- Develop the ability to identify and classify different pancreatic diseases, including benign and malignant tumors
- Become familiar with advanced diagnostic techniques, such as Endoscopic Retrograde Cholangiopancreatography (ERCP) and pancreatic MRI, for accurate assessment
- Assess the risk factors associated with pancreatic diseases and to understand the progression of these conditions. and understand the progression of these conditions
- Identify possible complications associated with pancreatic diseases and learn how to prevent and manage them effectively





### **International Guest Director**

Surgery and liver transplantation are the fields of research to which the eminent French physician and researcher Eric Vibert has devoted his professional career. For almost three decades, this expert has been involved in the holistic approach to primary liver cancer. Based on these interests, he has positioned himself as a true reference in this field, making significant contributions.

Dr. Vibert also leads a consortium called BOPA, which includes the University Paris-Saclay, the Ecole Mines Telécom and the Hepatobiliary Center of the Paul-Brousse Hospital (AP-HP). The aim of this project is to improve safety in operating rooms. To this end, its innovations are based on digital technologies, in gestation or already existing, which make it possible to increase the range of vision, speech and touch of the medical staff before any type of operation. These contributions, first implemented in simulated surgical rooms, have allowed the validation of multiple disruptive procedures.

In addition, this scientific pioneer is committed to connecting professionals from different fields in order to reinvent surgical practices. That is why his teams bring together engineers and computer scientists, as well as physicians, anesthesiologists, nurses and many other specialists. A work strategy that he continually integrates into his responsibilities and into the leadership of the Department of Surgery and Liver Transplantation at the Paul-Brousse de Villejuif Hospital in Paris.

In terms of academic impact, Dr. Vibert has more than 130 communications at international conferences and 30 plenary lectures. He also has an impressive H-index of 43, having authored 212 publications in first impact journals. He is also the author of the book Droit à l'Erreur, Devoir de Transparence, which deals with transparency and error management in medicine, and is the creator of the Week-End de l'Innovation Chirurgicale, with which he has left an everlasting medical-surgical mark.

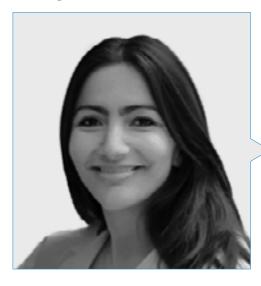


### Dr. Eric Vibert

- Chief of Surgery and Liver Transplantation at the Paul-Brousse de Villejuif Hospital, Paris, France
- Head of the Surgical Innovation Group at the University of Paris Sud
- Specialist in Liver and Biliary Tract Cancer Surgery
- Head of the Surgical Innovation Group of GH Paris Sud
- Director of Research, Biomedical/Medical Engineering at the University Paris-Sud
- Creator and Organizer of the Week-End de l'Innovation Chirurgicale
- Doctor of Medicine, St. Antoine Faculty of Medicine, University Paris VI



### Management



### Dr. Farah Al Shwely Abduljabar

- Head of the Hepatobiliopancreatic Surgery Unit of the University Hospital of Guadalajara
- Doctorate in Medicine, University of Alcala
- Specialist in General and Digestive System Surgery at the University Hospital of Guadalajara
- Astellas Fellowship in Hepatobiliopancreatic Surgery and Liver and Pancreatic Transplantation
- Master's Degree in Hepatology and Clinical Research from the University of Barcelona
- Master's Degree in Medical Expertise and Valuation of Bodily Injury by the University of Barcelona
- Degree in Medicine from the University of Alcalá, Spain
- Reviewer of the Central European Journal Of Medicine
- Member of the Spanish Association of Surgeons
- Editor of: Journal Of Liver and Clinical Research, EC Orthopaedics, Austin Pancreatic Disorders y Annals of Clinical Cytology and Pathology

#### **Professors**

### Dr. Mariam Bajawi

- Specialist in General and Digestive System Surgery at the University Hospital of Guadalajara
- Clinical Professor of General and Digestive System Surgery
- Dr. in Health and Life Sciences from the University of Alcalá de Henares
- Master's Degree in Digestive Oncology (Universidad CEU Cardenal Herrera) and Clinical Medicine (Universidad Camilo José Cela)
- Medical Degree from the University of Jordan

#### Dr. Vanessa Catalán Garza

- Specialist in General and Digestive System Surgery at the University Hospital of Guadalajara
- Physician at the San Carlos Clinical Hospital
- Master's Degree in Pediatrics in Clinical Medicine from the Camilo José Cela University
- Graduate in Medicine from the University of Zaragoza

### Dr. Aylhin López Marcano

- Physician in the Hepatobiliopancreatic Surgery Unit of the University Hospital of Guadalajara
- Doctorate in Medicine, University of Alcala
- Specialist in General and Digestive System Surgery
- Graduated from Luis Razetti School of Medicine
- Medical Degree from Universidad Central de Caracas

### Dr. Ignacio Gemio

- Specialist in General and Digestive System Surgery
- Professor the Department of Surgery, Medical and Social Sciences
- Master's Degree in Major Ambulatory Surgery from the Francisco de Vitoria University
- Degree in Medicine from the University of Alcalá

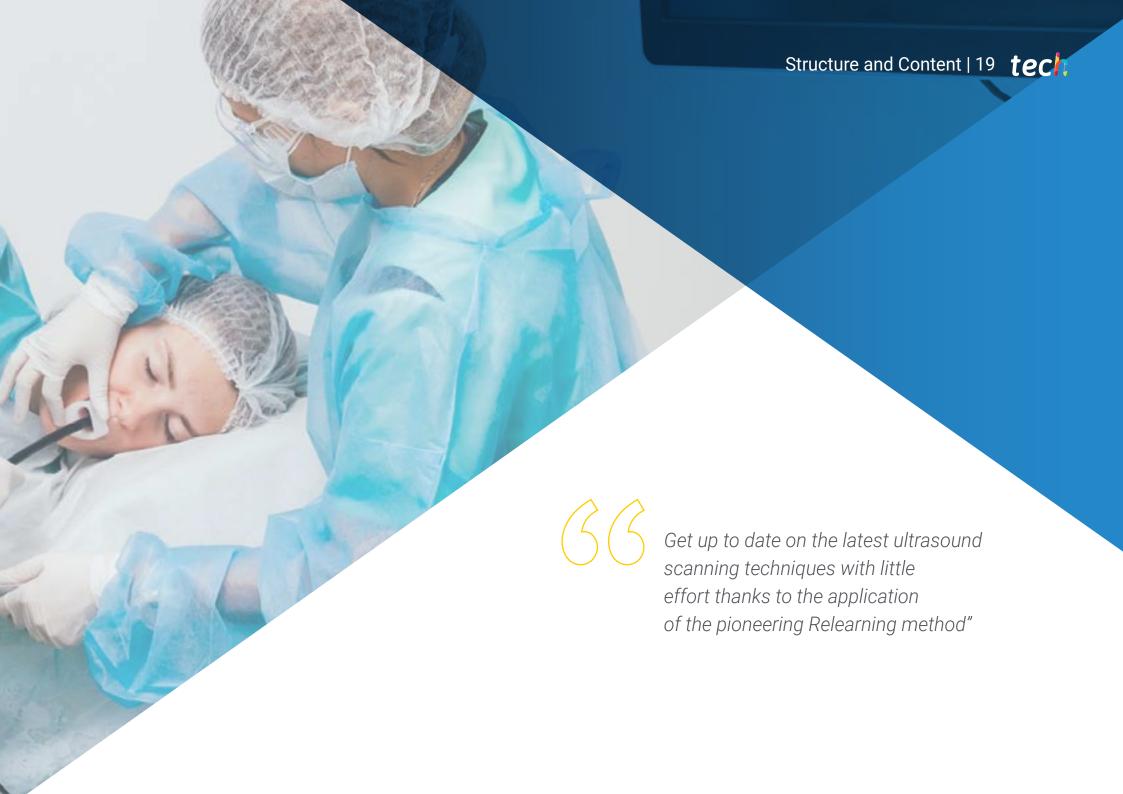
#### Dr. María Dolores Picardo

- General and Digestive System Surgeon at the University Hospital of Guadalajara
- Director of doctoral theses and final projects at University Hospital La Paz
- R&D&I management and participation in scientific committees
- Lecturer in programs and seminars aimed at university teacher training
- Graduate in Medicine from the Universidad Autonoma of Madrid
- Member of the Technical-Assistance Board of the Integrated Care Management of Guadalajara

### Dr. Begoña González Sierra

- Specialist in General and Digestive System Surgery at the University Hospital of Guadalajara
- Master's Degree General Surgery Updating by the Spanish Confederation of Universities
- Master's Degree in Integration and Clinical Problem Solving in Medicine from the University of Alcalá, Spain
- Master's Degree in Aesthetic Medicine, Universidad Rey Juan Carlos, Madrid
- Degree in Medicine from the Complutense University of Madrid
- Diploma in Physiotherapy from the Rey Juan Carlos University





### tech 20 | Structure and Content

### Module 1. Surgical anatomy of the liver

- 1.1. Liver Anatomy
  - 1.1.1. General Aspects
  - 1.1.2. Embryonic development of the liver of the biliary tract
  - 1.1.3. Conclusions
- 1.2. Anatomical relationships of the liver
  - 1.2.1. Superior Relations
  - 1.2.2. Past Relationships
  - 1.2.3. Lateral Relationships
- 1.3. Hepatic vascularization
  - 1.3.1. Definition
  - 1.3.2. Types
  - 1.3.3. Conclusions
- 1.4. Anatomy of the biliary tree
  - 1.4.1. Organs
  - 1.4.2. Hepatic ducts
  - 1.4.3. Conclusions
- 1.5. Hepatic segmentation
  - 1.5.1. Anatomical segmentation
  - 1.5.2. Eight Segment Division
  - 1.5.3. Clinical Significance
- 1.6. Ultrasound examination of hepatic anatomy
  - 1.6.1. Position of the Patient
  - 1.6.2. Ultrasonic probe
  - 1.6.3. Liver examination
- 1.7. Type of hepatic anatomical approaches
  - 1.7.1. Hepatectomy
  - 1.7.2. Segmentectomy
  - 1.7.3. Wedge resection
- 1.8. Management of bleeding in liver surgery
  - 1.8.1. Use of hemostatics and sealants
  - 1.8.2. Suture technique
  - 1.8.3. Blood transfusion





### Structure and Content | 21 tech

- 1.9. Vascular control techniques in hepatic surgery
  - 1.9.1. Main Techniques
  - 1.9.2. Most used techniques
  - 1.9.3. Conclusions
- 1.10. Hemostatic agents in liver surgery
  - 1.10.1. Hemostatic sponges
  - 1.10.2. Absorbable gelatines
  - 1.10.3. Tissue adhesives

### Module 2. Hepatic and duodecenopancreatic trauma

- 2.1. Injury mechanism of hepatic trauma
  - 2.1.1. Degrees of injury
  - 2.1.2. Injury management
  - 2.1.3. Conclusions
- 2.2. Evaluation, examination and classification of hepatic trauma
  - 2.2.1. Assessment
  - 2.2.2. Exploration
  - 2.2.3. Classification
- 2.3. Conservative management of hepatic trauma
  - 2.3.1. Types of Lesions
  - 2.3.2. Strategies
  - 2.3.3. Conclusions
- 2.4. Surgical management of liver trauma
  - 2.4.1. Type of injury
  - 2.4.2. Strategy
  - 2.4.3. Conclusions
- 2.5. Injuries to the vena cava and suprahepatic veins in hepatic trauma
  - 2.5.1. Vena cava
  - 2.5.2. Suprahepatic veins
  - 2.5.3. Diagnosis and Management
- 2.6. Mechanism of injury in duodenal and pancreatic trauma
  - 2.6.1. Trauma
  - 2.6.2. Associated injuries
  - 2.6.3. Treatment

### tech 22 | Structure and Content

- 2.7. Evaluation, examination and classification of duodenal and pancreatic trauma
  - 2.7.1. Assessment
  - 2.7.2. Exploration
  - 2.7.3. Classification
- 2.8. Diagnosis of duodenal and pancreatic trauma
  - 2.8.1. Clinical Assessment
  - 2.8.2. Diagnostic Tests
  - 2.8.3. Treatment
- 2.9. Treatment of duodenal and pancreatic trauma
  - 2.9.1. Duodenal trauma
  - 2.9.2. Pancreatic trauma
  - 2.9.3. Special considerations
- 2.10. Complications of duodenal and pancreatic trauma
  - 2.10.1. Management of complications
  - 2.10.2. Evaluation of complications
  - 2.10.3. Conclusions

### Module 3. Pancreatic Disease

- 3.1. Pancreas Anatomy
  - 3.1.1. Location
  - 3.1.2. Divisions of the pancreas
  - 3.1.3. Relationship with other organs
- 3.2. Surgical anatomy of the pancreas
  - 3.2.1. Head
  - 3.2.2. Body
  - 3.2.3. Cola
- 3.3. Embryology of the pancreas
  - 3.3.1. Initial development
  - 3.3.2. Formation of the parties
  - 3.3.3. Conclusions
- 3.4. Vascularization and venous drainage
  - 3.4.1. Pancreatic arteries
  - 3.4.2. Accessory pancreatic arteries
  - 3.4.3. Drainages





### Structure and Content | 23 tech

- 3.5. Lymphatic drainage (lymph node stations)
  - 3.5.1. Peripancreatic Ganglionic Station
  - 3.5.2. Splenic Hilum Ganglionic Station
  - 3.5.3. Hepatic Hilum Ganglionic Station
- 3.6. Pancreatic physiology
  - 3.6.1. Exocrine Function of the Pancreas
  - 3.6.2. Endocrine Function of the Pancreas
  - 3.6.3. Regulation of endocrine function
- 3.7. Regulation of pancreatic secretion
  - 3.7.1. Neuronal stimulation
  - 3.7.2. Hormonal stimulation
  - 3.7.3. Negative feedback mechanisms
- 3.8. Medical History
  - 3.8.1. Physical Examination
  - 3.8.2. Complementary Tests
  - 3.8.3. Others
- 3.9. Imaging studies of pancreatic pathology
  - 3.9.1. Abdominal Computed Tomography (CT) scan
  - 3.9.2. Magnetic Resonance Imaging (MRI) of the Pancreas
  - 3.9.3. Abdominal ultrasound
- 3.10. Echoendoscopy in the diagnosis of pancreatic disease
  - 3.10.1. Detailed visualization of the pancreas
  - 3.10.2. Evaluation of pancreatic tumors
  - 3.10.3. Detection of small lesions



With this university program you will have access to the best multimedia content 24 hours a day, 7 days a week"





### tech 26 | Methodology

#### 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:

- 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.





### Methodology | 29 tech

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.









### tech 34 | Certificate

This program will allow you to obtain your **Postgraduate Diploma in Duodenopancreatic Trauma** and **Pathology** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: Postgraduate Diploma in Duodenopancreatic Trauma and Pathology

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



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

#### Postgraduate Diploma in Duodenopancreatic Trauma and Pathology

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



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

tech global university

## Postgraduate Diploma Duodenopancreatic Trauma and Pathology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

