

# Postgraduate Diploma

Colorectal, Esophagogastric and  
Peritoneal Oncological Surgery





## Postgraduate Diploma

### Colorectal, Esophagogastric and Peritoneal Oncological Surgery

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

Website: <https://portal-tech-eu-win.azurewebsites.net/us/medicine/postgraduate-diploma/postgraduate-diploma-colorectal-esophagogastric-peritoneal-oncological-surgery>

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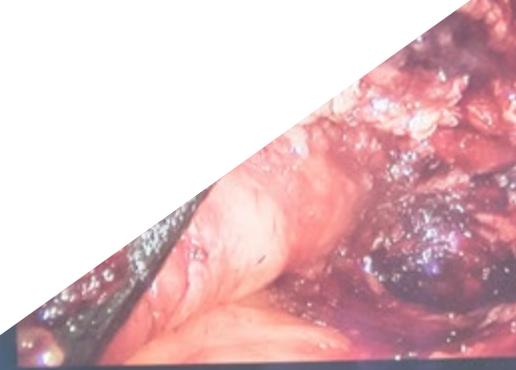
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# 01

# Introduction

Malignant peritoneal diseases have attracted enormous interest in recent years because of the advances that have taken place in this field. At the same time, organ preservation strategies such as watch and wait have been a breakthrough in the field of rectal cancer treatment, becoming key pieces in the field of Colorectal Oncological Surgery. All this is a great advantage for the specialists, but since Digestive Oncological Surgery can become ostensibly extensive, TECH has designed precisely this qualification. This program focuses on the latest advances in Colorectal, Esophagogastric and Peritoneal Oncological Surgery, with a 100% online format that greatly facilitates being combined with even the most demanding schedules.



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*Update yourself in a preferential field  
in Digestive Oncological Surgery, accessing  
the latest studies available in cancers  
of the rectum and esophagus”*

It is evident that, with increasing momentum, the teams of Oncological Digestive Surgery must be prepared to face complications of all kinds.

Tumors present in the Digestive System may present disparate casuistry, being the area of the peritoneum, rectum and esophagus those that have especially complex pathologies even for the most up-to-date surgeons.

This means that more emphasis must be placed on precisely this work of updating, as there are constant advances in surgical management, endoscopic treatments and palliative care around this type of cancer. This TECH Postgraduate Diploma has been created based on this premise, bringing together a renowned group of teachers to develop a first quality teaching material.

All the content of this program responds to the most recent scientific and practical urgency, exhaustively reviewing issues such as peritoneal carcinomas, surgical anatomy of the pelvis or genetic studies of special relevance in digestive tumors. All this from a clinical perspective, based on the teachers' own experience along a long trajectory in the most reference surgical units.

A perfect academic opportunity to advance and catch up in the field of Colorectal, Esophagogastric and Peritoneal Oncological Surgery. The absence of schedules and face-to-face classes makes the program much more flexible, being able to adapt to the individual needs of each specialist who decides to take it.

This **Postgraduate Diploma in Colorectal, Esophagogastric and Peritoneal Oncological Surgery** 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 Digestive Surgery and Oncology
- ◆ 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 self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, forums for discussion of controversial issues and individual reflection papers
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Examine the most relevant clinical developments, including detailed analyses of Colorectal Cancer, Cecal Appendix Neoplasms and Peritoneal Carcinomatosis"*

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*You will be able to choose when, where and how to assume all the teaching load thanks to the great availability of the Virtual Campus, accessible 24 hours a day"*

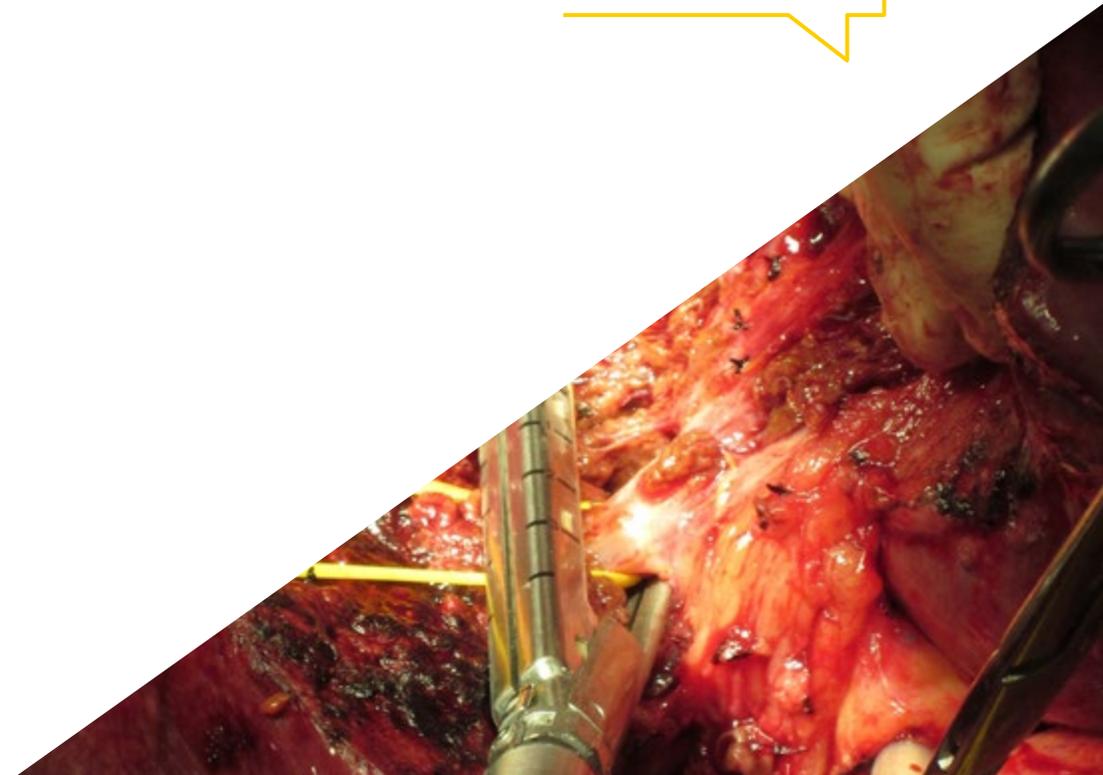
The program's teaching staff includes professionals from the sector who contribute their work experience to this program, in addition to renowned specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*All the contents of the program can be downloaded from any device with an Internet connection, being able to be reviewed from the comfort of your smartphone or tablet.*

*You'll have a multimedia library rich in resources of high quality, elaborated by the own teaching team.*



# 02

# Objectives

The objectives of this program are to cover the main developments in surgical treatments for colon, rectum, esophagus, stomach and peritoneum cancer. For this reason, all the contents provided have a solid scientific basis, endorsed by the quality of the teaching staff. Throughout the program, the specialists' own critical thinking will be promoted, an indispensable quality to transfer all knowledge to real clinical environments.



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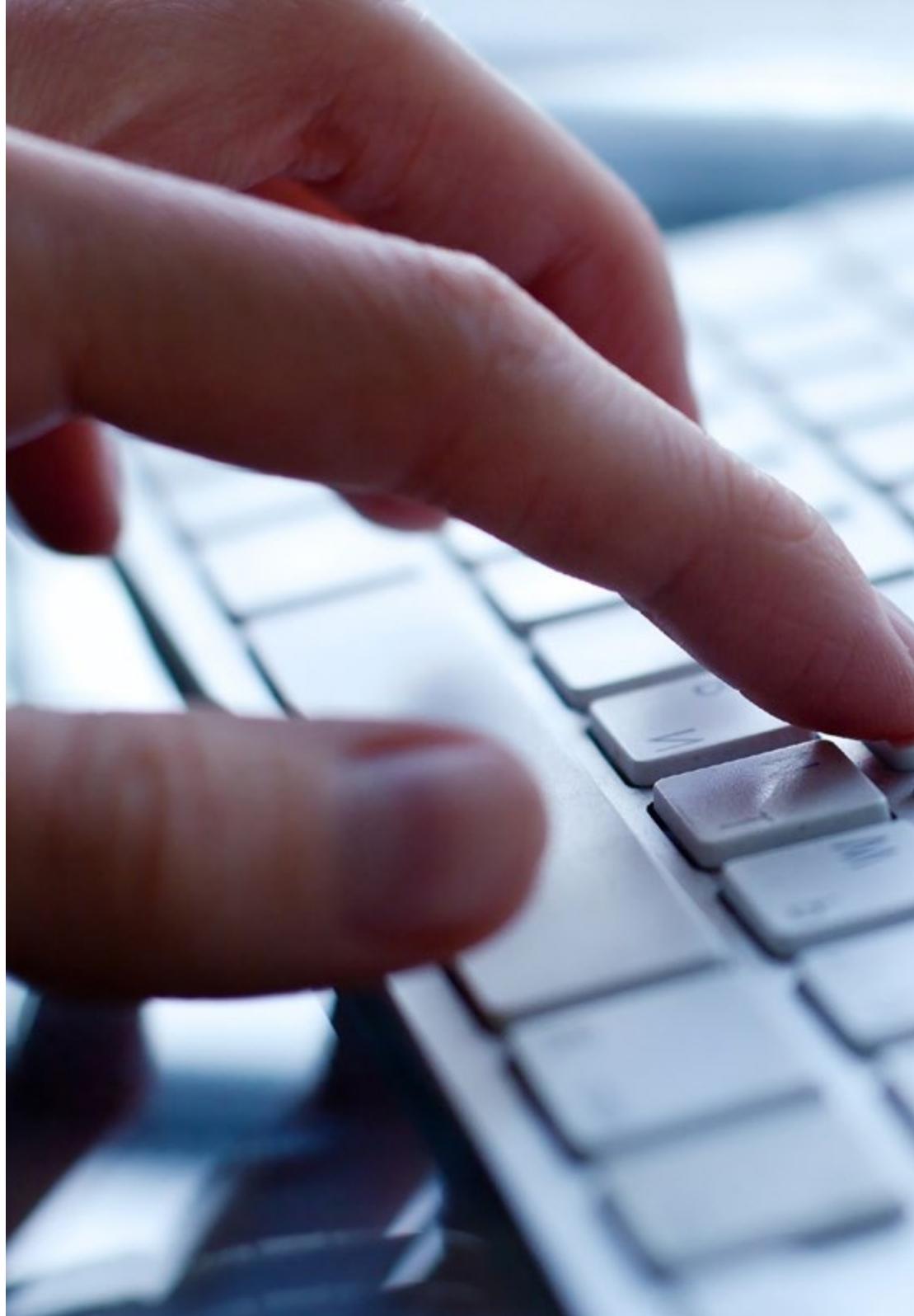
*Incorporate in your work methodology  
the most innovative approaches  
and treatments in colorectal and  
peritoneal neoplasms”*



## General Objectives

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- ◆ Delve the specific knowledge on the management of patients with tumors affecting the digestive system
- ◆ Discern the surgical techniques to be used and the new technologies currently available for their diagnosis and treatment
- ◆ Know where modern surgery is heading and which are the ways of its development
- ◆ Study the fundamentals of research in oncological surgery
- ◆ Know the way to develop research projects, how to do it and where to get help
- ◆ Develop skills and technical knowledge with which to face any situation presented by a patient in an oncological surgery unit of the digestive system





## Specific Objectives

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### Module 1. Complementary studies in digestive oncology surgery

- ◆ Understand the different radiological techniques and their indications in the primary diagnosis of digestive tumors, including ultrasound, CT and MRI
- ◆ Study the peculiarities of the different radiological techniques for early diagnosis both in healthy population (screening) and people with risk factors
- ◆ Know the contributions of conventional radiology in the follow-up of patients with digestive tumors
- ◆ Analyze the different contributions of interventional radiology to the diagnosis of digestive tumors
- ◆ Review the basic radiopharmaceuticals used in digestive pathology, as well as the contributions of Nuclear Medicine to the field of Digestive Oncological Surgery
- ◆ Understand the basis of molecular diagnostics and its contribution to the development of cancer panels, as well as its importance in the design of personalized therapies and its value in the analysis of response to treatment
- ◆ Examine the main hereditary syndromes involved in the development of digestive tumors, their implication in the detection of high-risk patients and the planning of prophylactic surgeries
- ◆ Understand the concept of microbiome and its possible role in the carcinogenesis process that determines the development of digestive tumors
- ◆ Know the possible role of the microbiome both in the early diagnosis and prevention of digestive tumors

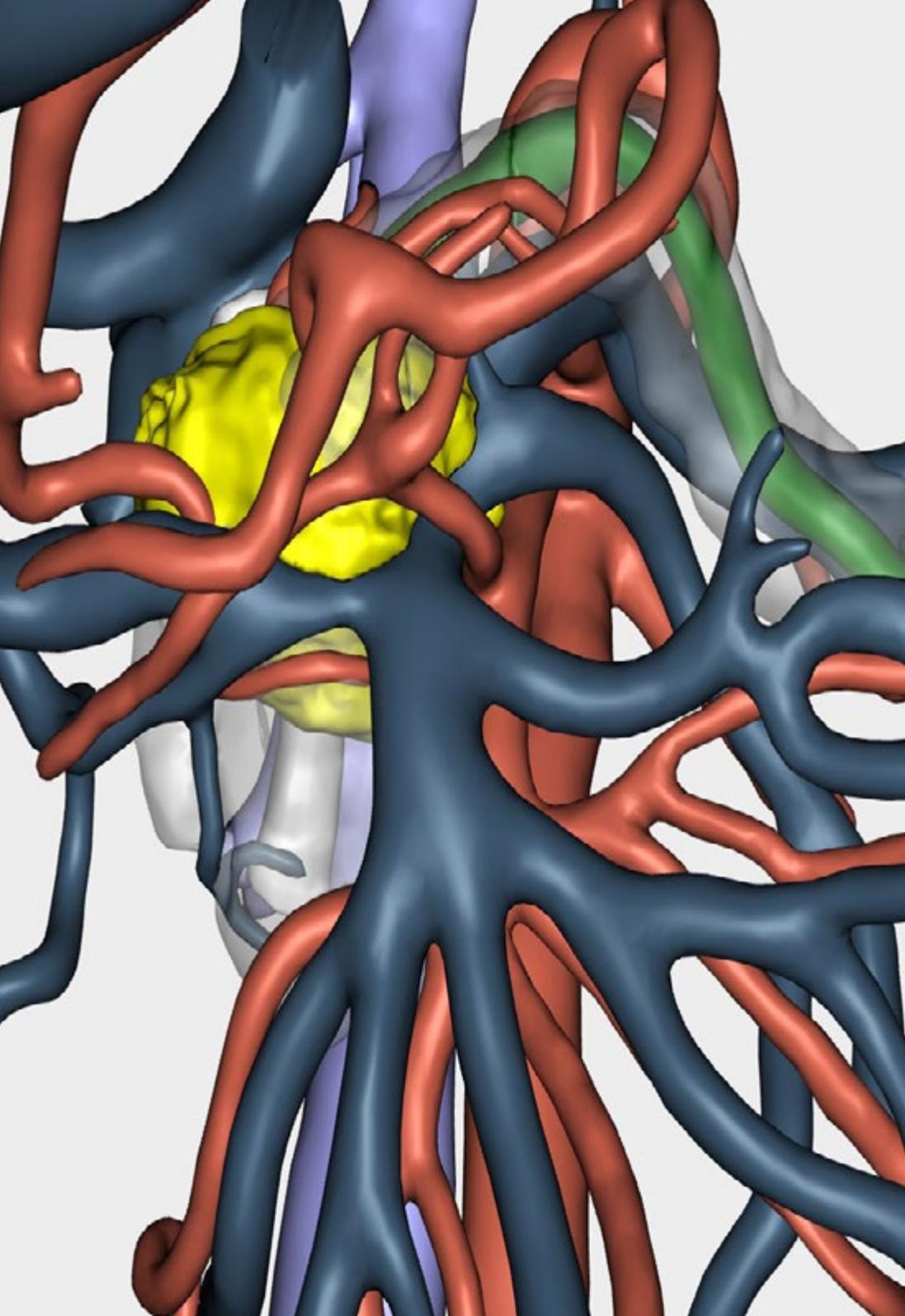
## Module 2. Colorectal Oncologic Surgery

- ◆ Examine the epidemiology and etiopathogenesis in Colorectal Oncologic Surgery, as well as the diagnostic tests necessary to diagnose it. Recognize the screening tests for early detection in the general population, as well as to know what the prognosis of these patients will be and what follow-up should be done
- ◆ Understand which are the syndromes associated with colon polyposis and their risk of developing colorectal cancer
- ◆ Analyze the surgical treatment of colon cancer depending on its location: right, transverse or left
- ◆ Study in depth the anatomy of the pelvis and the different organs and structures that are housed in it
- ◆ Recognize the differences between the male and female pelvis, studying the anatomical relationships between them and knowing the surgical approach planes
- ◆ Delve into the importance and meaning of "complete excision of the mesorectum", differentiating the different treatment options depending on the local stage and location of the tumor
- ◆ Learn the different surgical techniques available for each case: transanal minimally invasive surgery (TAMIS), complete transanal mesorectal excision TATME, laparoscopic and robotic surgery, sphincter preservation, pelvic exenteration techniques or abdominoperineal amputation
- ◆ Know which are the treatments applied by Medical Oncology in colorectal cancer, in which stages it provides benefit, which are the treatment options, at what moment they should be applied and with what duration
- ◆ Understand the role of radiotherapy in colorectal cancer, especially in rectal cancer. Know when it can be applied and the differences in results, side effects and sequelae depending on when it is applied. Its role in other situations such as local recurrences and retroperitoneal lymph node disease

- ◆ Analyze the different neoadjuvant treatment modalities in rectal cancer and their results, knowing the benefits of each strategy
- ◆ Understand fundamental aspects of the management of patients with colorectal cancer in some special situations: obstruction, treatment with prosthesis or surgery; urgent surgery in patients treated with antiVEGF, management of pelvic recurrence; treatment of positive iliac adenopathies; retroperitoneal lymph node recurrence: radiotherapy or surgery

## Module 3. Malignant Peritoneal Disease

- ◆ Study the basic principles of malignant peritoneal dissemination mechanisms
- ◆ Examine the general criteria for indicating radical or palliative treatment of Malignant Peritoneal Diseases in a multidisciplinary context, what they consist of and the prognostic factors involved
- ◆ Analyze the diagnostic methods for the adequate evaluation of Malignant Peritoneal Diseases, both in their characterization and extension. Classification
- ◆ Distinguish principles of cytoreductive surgery and peritonectomy procedures
- ◆ Understand the basic principles of intraperitoneal chemotherapy: rationale, administration techniques and modalities, regimens
- ◆ Update the histopathological classification of neoplasms of the cecal appendix, prognosis and their surgical treatment
- ◆ Review the diagnosis, prognosis, and treatment of peritoneal pseudomyxoma, peritoneal mesothelioma, and peritoneal carcinomatosis secondary to colorectal, gastric, and ovarian cancer



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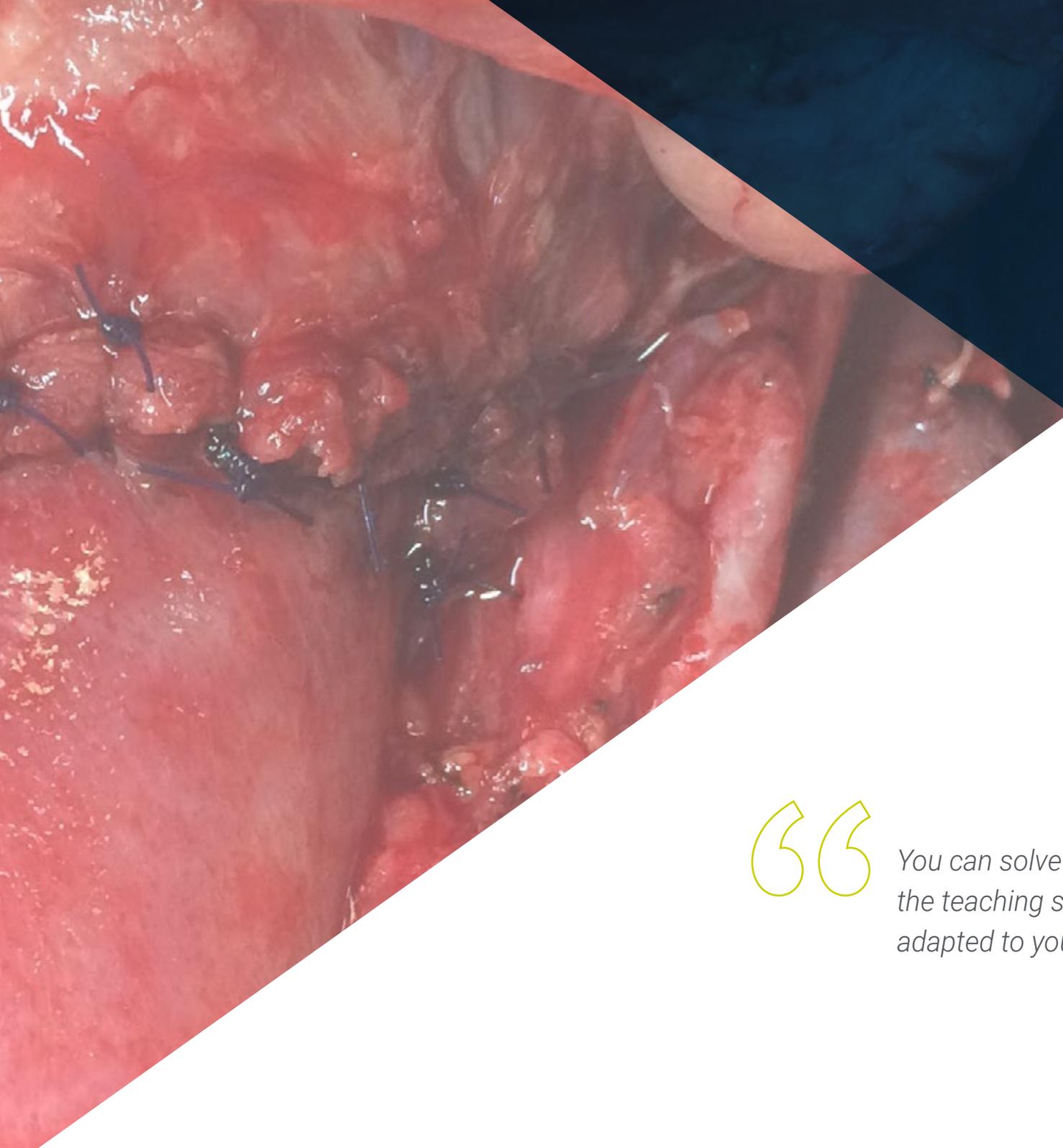
*Lean on the most valid clinical practice, based on the experience of an unrivalled teaching staff"*

# 03

# Course Management

To ensure the highest quality of this program, TECH has had an exceptionally experienced teaching staff in the area of digestive oncology. All the contents have been elaborated by experts in the various areas of the digestive system, including specialists in peritoneal oncology and digestive oncological surgery. It is the teachers themselves who provide a multitude of cases and analyses based on real examples, giving the necessary practical approach to the whole subject.





“

*You can solve your doubts directly with the teaching staff, obtaining an experience adapted to your own needs”*

## Management



### Dr. Alonso Casado, Oscar

- ♦ Chief of Hepatobiliopancreatic Surgery at MD Anderson Cancer Center Madrid Hospital
- ♦ Specialist in the General and Digestive Oncology Surgery Service at MD Anderson Cancer Center Madrid, collaborating in the Thoracic Surgery Unit and Plastic Surgery Unit
- ♦ Assistant Surgeon at Quirónsalud Sur and El Escorial Hospitals
- ♦ Clinical Tutor in Practical Teaching at UFV and MD Anderson Cancer Center Madrid
- ♦ Degree in Surgery and Medicine from the UCM
- ♦ Certified in Console Surgery of the Da Vinci Xi Robotic System

## Professors

### Dr. Ortega Pérez, Gloria

- ♦ Specialist in the Digestive Tumors and Peritoneal Oncology Unit at the MD Anderson Cancer Center. Madrid
- ♦ Specialty in General and Digestive Surgery at Hospital university 12 de Octubre
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Fellowship in Gastrointestinal Oncologic Surgery at the Washington Hospital Center
- ♦ Master in Molecular Oncology and Molecular Basis of Cancer at the (CNIO National Cancer Research Center)



# 04

## Structure and Content

In order to facilitate the study work of the specialists as much as possible, the contents of the Postgraduate Diploma have been written following the methodology of Relearning, in which TECH is a pioneer. Therefore, the most relevant concepts in Colorectal, Esophagogastric and Peritoneal Oncological Surgery are given gradually throughout the entire program, assuming a much more rewarding and effective academic experience.





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*Detailed videos, work guides, interactive summaries and other multimedia resources will be key in your upgrade process”*

## Module 1. Complementary studies in digestive tumors

- 1.1. Role of conventional radiological techniques
  - 1.1.1. Initial Diagnosis
  - 1.1.2. Extension study in patients with digestive tumors
  - 1.1.3. Treatment planning
- 1.2. Role of conventional radiology in the early diagnosis and follow-up of patients with digestive tumors
  - 1.2.1. Ultrasound
  - 1.2.2. CAT
  - 1.2.3. MRI
- 1.3. Role of interventional radiology in digestive tumors
  - 1.3.1. Diagnostic Techniques
  - 1.3.2. Participation in treatment
  - 1.3.3. Role in the management of complications
- 1.4. Nuclear medicine in the management of digestive tumors
  - 1.4.1. Diagnostic techniques
  - 1.4.2. Role in treatment
  - 1.4.3. Radioguided surgery
- 1.5. Anatomopathological diagnosis. Beyond morphology
  - 1.5.1. Importance of intraoperative biopsy
  - 1.5.2. Handling of fresh specimen and study of margins
  - 1.5.3. Histologic Risk Factors
  - 1.5.4. Standardization of reports
- 1.6. Molecular diagnosis
  - 1.6.1. Concept of molecular diagnostics
  - 1.6.2. Cancer panels
  - 1.6.3. From diagnosis to the design of personalized therapies
- 1.7. Genetic study in patients with risk factors for digestive tumors
  - 1.7.1. Hereditary syndromes associated with digestive tumors
  - 1.7.2. Detection of patients at risk
  - 1.7.3. Follow-up and prophylactic treatment in patients at risk

- 1.8. Diagnostic techniques in digestive tumors performed by surgeons
- 1.9. Microbiome and digestive tumors
  - 1.9.1. Microbiota Concept
  - 1.9.2. Role of the microbiome in carcinogenesis
  - 1.9.3. Role of the microbiome in the early diagnosis and prevention of digestive tumors
- 1.10. Preoperative assessment of the elderly patient
  - 1.10.1. Surgical risk scales
  - 1.10.2. Concept of frailty
  - 1.10.3. Prehabilitation in the elderly

## Module 2. Colorectal Oncologic Surgery

- 2.1. Colorectal Cancer
  - 2.1.1. Epidemiology and Etiopathogenesis
  - 2.1.2. Diagnosis and Staging
  - 2.1.3. Follow-up and prognosis of colorectal adenocarcinoma
- 2.2. Polyposis syndromes
  - 2.2.1. Diagnosis
  - 2.2.2. Treatment
  - 2.2.3. Monitoring
- 2.3. Endoscopic management of precursor lesions and early cancer
  - 2.3.1. Biliopancreatic Precursor Lesions
  - 2.3.2. Early cancer
  - 2.3.3. Decisions after endoscopic resection
- 2.4. Surgical treatment of colon cancer. Fundamental concepts about ostomies
  - 2.4.1. Right colon
  - 2.4.2. Transverse colon
  - 2.4.3. Left colon
  - 2.4.4. Colostomies and ileostomies
- 2.5. Surgical anatomy of the pelvis
  - 2.5.1. General Concepts
  - 2.5.2. Male Pelvis
  - 2.5.3. Female Pelvis

- 2.6. Surgical treatment of rectal cancer
  - 2.6.1. Early Stages
  - 2.6.2. Advanced Stages
  - 2.6.3. Functional sequelae
- 2.7. Medical Oncology in Colorectal Cancer
  - 2.7.1. Non-metastatic Colorectal Cancer
  - 2.7.2. Metastatic colorectal cancer
  - 2.7.3. Palliative treatment
- 2.8. Radiation Oncology in Colorectal Cancer
  - 2.8.1. Radiotherapy in rectal cancer
  - 2.8.2. Radiotherapy in pelvic recurrence
  - 2.8.3. Radiotherapy in special situations
- 2.9. Total neoadjuvant treatment in rectal cancer. Watch and wait
  - 2.9.1. Concept and justification of TNT
  - 2.9.2. Current TNT schemes
  - 2.9.3. Watch and wait concept, handling and indications
- 2.10. Surgical Treatment in Special Situations
  - 2.10.1. Pelvic recurrence of rectal cancer
  - 2.10.2. Positive pelvic adenopathies in rectal cancer
  - 2.10.3. Retroperitoneal lymph node recurrence: Surgery vs. Radiotherapy
- 3.4. Intraperitoneal Chemotherapy
  - 3.4.1. Pharmacokinetic basis
  - 3.4.2. Modalities of intraperitoneal chemotherapy: indications and use
  - 3.4.3. HIPEC Technique
- 3.5. Neoplasms of the cecal appendix
  - 3.5.1. Histological Classification
  - 3.5.2. Natural history and staging
  - 3.5.3. Surgical Treatment
- 3.6. Pseudomyxoma Peritoneum
  - 3.6.1. Definition and Epidemiology
  - 3.6.2. Classification histopathological and Prognosis
  - 3.6.3. Treatment
- 3.7. Peritoneal carcinomatosis due to colorectal cancer
  - 3.7.1. Treatment
  - 3.7.2. Role of MRI
  - 3.7.3. Early diagnosis and prevention
- 3.8. Peritoneal carcinomatosis due to gastric cancer
  - 3.8.1. Treatment with radical intent: selection
  - 3.8.2. Palliative treatment: intraperitoneal options
  - 3.8.3. Prevention
- 3.9. Peritoneal carcinomatosis due to of ovarian cancer
  - 3.9.1. Primary treatment
  - 3.9.2. Role of MRI
  - 3.9.3. Treatment of peritoneal recurrence
- 3.10. Peritoneal mesothelioma
  - 3.10.1. Definition and Epidemiology
  - 3.10.2. Classification histopathological and Prognosis
  - 3.10.3. Treatment

### Module 3. Malignant Peritoneal Disease

- 3.1. Principles of treatment of malignant peritoneal diseases
  - 3.1.1. Pathophysiology of peritoneal dissemination Mechanisms
  - 3.1.2. Indications for Radical vs. Palliative Treatment
  - 3.1.3. Prognostic Factors
- 3.2. Assessment of Malignant Peritoneal Disease
  - 3.2.1. Prognostic Factors
  - 3.2.2. The role of Laparoscopy
  - 3.2.3. Histological Classification
- 3.3. Cytoreductive surgery: technique
  - 3.3.1. Patient Preparation and Positioning
  - 3.3.2. Peritonectomy procedures
  - 3.3.3. Criteria of non-viability

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.

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*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

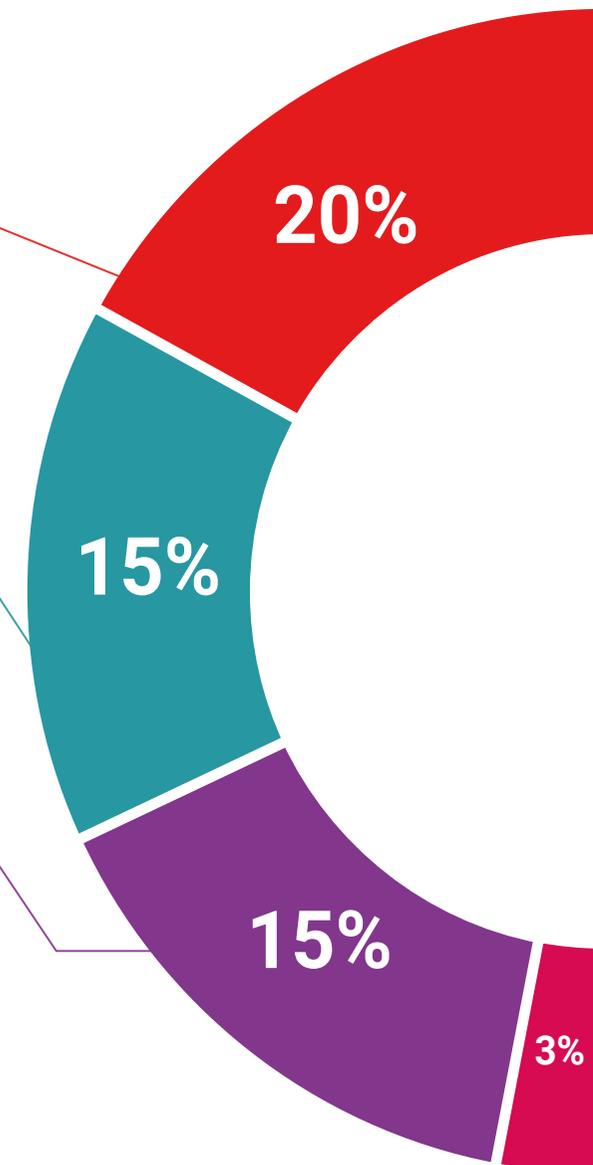
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

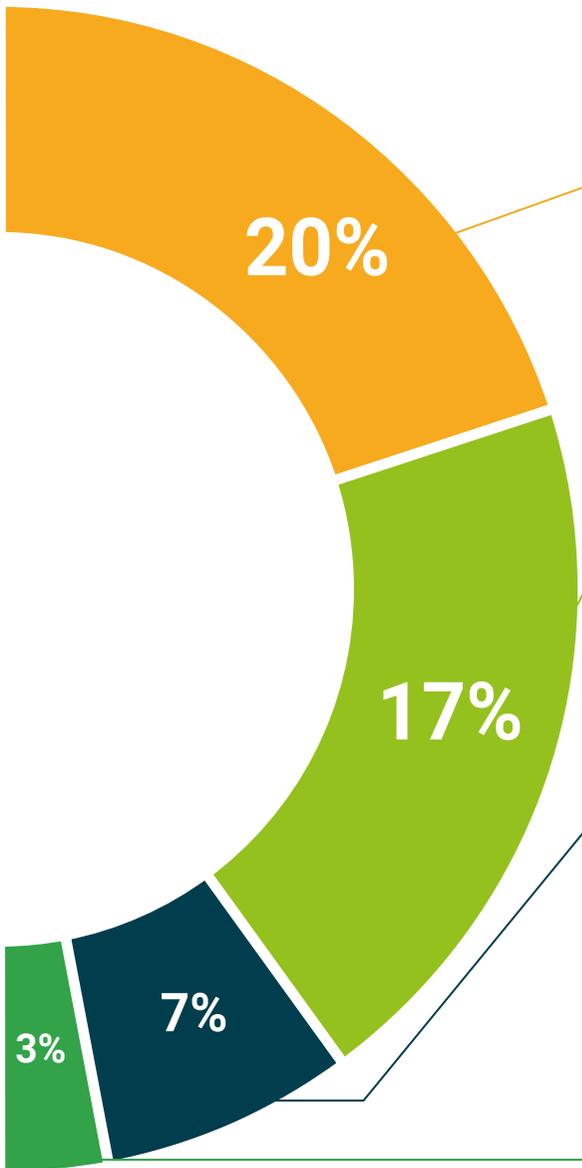
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 Diploma in Colorectal, Esophagogastric and Peritoneal Oncological Surgery guarantees students, in addition to the most rigorous and up-to- education, access to a Postgraduate Diploma issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Diploma in Colorectal, Esophagogastric and Peritoneal Oncological Surgery** 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.

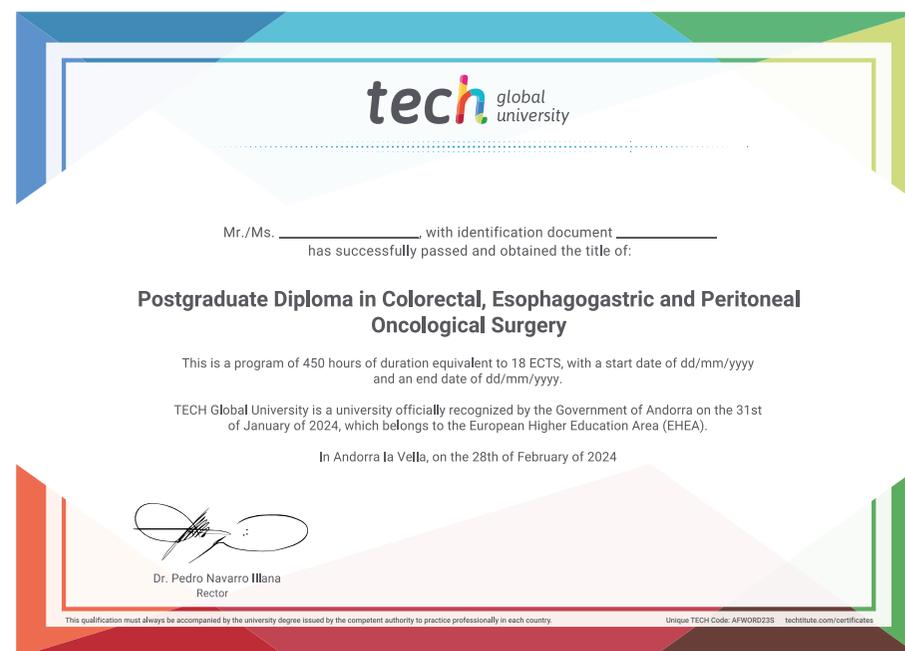
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Colorectal, Esophagogastric and Peritoneal Oncological Surgery**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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



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