

# Postgraduate Diploma

Endoscopic and Percutaneous Treatments.  
Surgical Treatment for Obesity





## Postgraduate Diploma

### Endoscopic and Percutaneous Treatments. Surgical Treatment for Obesity

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

Website: [www.techitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-endoscopic-percutaneous-treatments-surgical-treatment-obesity](http://www.techitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-endoscopic-percutaneous-treatments-surgical-treatment-obesity)

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# 01

# Introduction

Specialize in Endoscopic and Percutaneous Techniques with this high-level training provided by renowned surgeons with extensive experience in the field.

Throughout these months of specialization you will learn about currently used endoscopic therapies for obesity; you will learn to perform many of the bariatric intervention techniques, and explain the postoperative complications derived from the performance of the different surgical techniques, among many other issues of interest.

A unique opportunity to prepare yourself among the best and stand out in a high-demand professional field.



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*The Postgraduate Diploma was created to take the professional through the essential knowledge in each and every one of the areas that make up a high-level Bariatric Unit”*

Obesity is the most common metabolic disease in the western world and one of the most important health problems in developed countries. Nowadays, surgery is considered to be the only treatment capable of offering a substantial and sustained weight loss over time, reducing comorbidities and improving patient quality of life.

In the last decade, the number of annual bariatric procedures has skyrocketed exponentially, leading to an increase in the creation of multidisciplinary bariatric surgery units throughout the world. This has generated a greater demand for healthcare professionals involved in the treatment of this pathology, and training and accreditation programs in bariatric surgery have increased.

Bariatric surgery has undergone a spectacular development in recent years, the expansion of surgical indications hand in hand with metabolic surgery, technological and robotic innovation, the emergence of new surgical techniques and the exponential growth of vertical gastrectomy, the difficulty to standardize the most effective treatment for weight regain and recurrence of comorbidities, all these factors force both the general and digestive surgeon as well as the specialist in bariatric surgery to update their knowledge, study the available evidence, and develop new skills that will allow them to keep up with the changes and continue to offer good quality treatment to their patients.

This Postgraduate Diploma has been conceived to offer medical professionals the necessary specialization to practice as a bariatric surgeon. This training is a unique opportunity as it contains the most complete and up-to-date scientific program on the market. Its topics allow specialists to access all the necessary knowledge based on scientific evidence and adapt their training process to their personal and professional needs.

Our teaching staff is integrated by different medical professionals of recognized prestige belonging to the field of Obesity (surgeons, endocrinologists, nutritionists, psychologists, gastroenterologists, etc.), who are also references in the field of bariatric surgery. A multidisciplinary team of experienced professionals who will faithfully develop theoretical knowledge and apply their practical experiences to the service of the student, one of the differential qualities of this Postgraduate Diploma.

This **Postgraduate Diploma in Endoscopic and Percutaneous Treatments. Surgical Treatment for Obesity** offers you the characteristics of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- ♦ Latest technology in online teaching software.
- ♦ Highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand.
- ♦ Practical cases presented by practising experts.
- ♦ State-of-the-art interactive video systems.
- ♦ Teaching supported by telepractice.
- ♦ Continuous updating and recycling systems.
- ♦ Self-regulating learning: full compatibility with other occupations.
- ♦ Practical exercises for self-evaluation and learning verification.
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- ♦ Communication with the teacher and individual reflection work.
- ♦ Content that is accessible from any fixed or portable device with an Internet connection.
- ♦ Supplementary documentation databases are permanently available, even after the course.



*A unique specialization program with which you can achieve professional success”*



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*The teachers of this Postgraduate Diploma have been selected based on two criteria: the excellence of their medical practice in the field of the creation, promotion and maintenance of bariatric units, and their proven didactic capacity. All in order to offer you the high quality training program that you need”*

Our teaching staff is composed of medical professionals, practising specialists. That way we can be sure you will receive the training update we are aiming to provide. A multidisciplinary team of qualified and experienced physicians in different settings, who will develop the theoretical knowledge in an efficient manner, but, above all, will bring to the course the practical knowledge derived from their own experience: one of the differential qualities of this program.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this Postgraduate Diploma. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for your specialization.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With a methodological design based on proven teaching techniques, this Postgraduate Diploma will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*



# 02 Objectives

This program aims to train highly qualified professionals for the workplace. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping surgical professionals reach a much higher level of expertise and control, meeting all the requirements in the field of bariatric surgery. A goal that, in just a few months, you will be able to achieve with a highly intensive and precise course.







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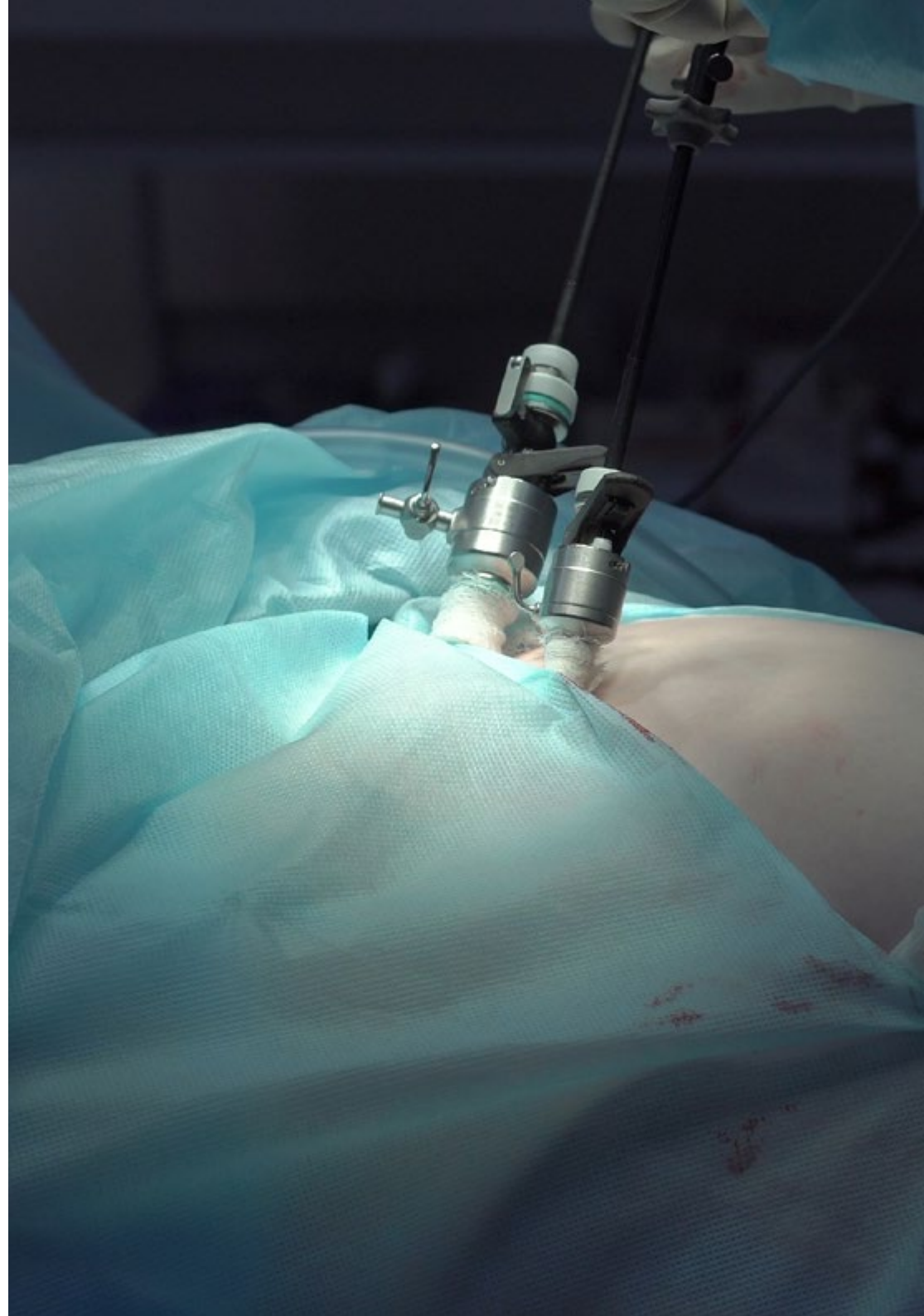
*Our goal is yours: to provide you with the best online training and specialization course in Bariatric Surgery on the market. A highly qualified step, from the hands of the best professionals in this specialty”*



## General Objectives

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- Learn the key elements of obesity surgery
- Perform an exhaustive review of the latest scientific evidence available
- Describe and understand the most advanced techniques in bariatric surgery
- Describe the theoretical framework and praxis of multidisciplinary obesity teams
- Describe the aspects of clinical management
- Describe the aspects of economical management
- Describe the medical legal aspects of bariatric surgery
- Describe the different endoscopic and percutaneous techniques in the treatment of obesity.
- Analyze the short-term to medium-term results achieved with these procedures
- Evaluate complications
- Establish the mechanisms of action for each technique
- Know the historical background and beginnings of obesity surgery.
- Study the different surgical techniques in the treatment of obesity.
- Establish which is the most appropriate surgical technique for each patient.





## Specific Objectives

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- ♦ Gain an in-depth understanding of obesity as a clinical condition and its pathophysiology
- ♦ Correctly evaluate a patient with obesity
- ♦ Learn advanced practical knowledge of dietary, pharmacological treatment and movement education of obesity
- ♦ Establish the physiological basis of action in these procedures
- ♦ Describe the development of techniques
- ♦ Analyze hormonal effects
- ♦ Justify the causes of decreased appetite
- ♦ Analyze the safety of treatment
- ♦ Evaluate the quality of life during and after the treatment
- ♦ Describe adjuvant methods with a synergistic effect in these procedures
- ♦ Know the historical framework of the origin of each of the bariatric techniques.
- ♦ Describe step-by-step the development of surgical techniques.
- ♦ Establish the physiological bases and mechanisms of action in these procedures.
- ♦ Highlight the most accepted indications of each of the interventions.
- ♦ Analyze the short- to medium-term results achieved with these procedures.
- ♦ Explain the postoperative complications associated with each of the different surgical techniques.

03

# Course Management

For our Postgraduate Diploma to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record in the field of Bariatric Surgery. A multidisciplinary team, made up of professionals who will contribute their vision and experience to this comprehensive course. A unique opportunity to learn from the best.





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*Your professors in this Postgraduate Diploma will be a team of professionals with solid backgrounds: a unique opportunity to learn directly from the best in the field”*



## International Guest Director

Dr. Alec Beekely is an international eminence in Bariatric and Metabolic Surgery. Throughout his career, this specialist has mastered the most disruptive tools and procedures to intervene patients with pathologies such as Morbid Obesity, Diabetes, among others. Thanks to his extensive experience and continuous updating, he has become the Director of the surgical program, focused on this area, at Thomas Jefferson University Hospital in the United States.

At the same time, the expert maintains close ties with the Trauma and Intensive Care Service of the same health institution. Through this work, he has performed operations on people in serious or acute conditions and, in turn, supervises the progress of residents and interns under his care. In addition, he is an instructor of Advanced Life Support in Trauma.

Similarly, his research career has been linked to clinical analysis projects. In particular, Dr. Beekley has addressed in depth the management of the Roux-en-Y gastric bypass technique and its subsequent outcomes such as weight loss and ulceration. He is also a scientific reviewer for multiple peer-reviewed journals such as Surgery for Obesity and Related Diseases and the Journal of Trauma.

On the other hand, this specialist has a long career in the medical-war context. His beginnings in the field of military surgery have been linked to combat and extreme situations such as the wars in Afghanistan and Iraq. Given his merits in this complex field, he has received various awards such as the Bronze and Meritorious Service Medals awarded by his country's army.

Dr. Beekley has also been an active member of several scientific societies and committees. In this way, through his intense healthcare management, he has become a true reference in world medicine..



## Dr. Beekley, Alec

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- Director of the Metabolic and Bariatric Surgery Program at Thomas Jefferson University Hospital
- Advanced Life Support Instructor in the Trauma and Intensive Care Service at Thomas Jefferson University Hospital
- Director of the Combat Casualty Research Team at the 28th Combat Support Hospital in Baghdad, Iraq
- Staff Surgeon General, 102nd Forward Surgical Team, Kandahar, Afghanistan
- General Surgeon, Madigan Army Medical Center, Tacoma
- General Surgeon at Blanchfield Army Community Hospital in Kentucky
- M.D., Case Western Reserve University

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Priego Jiménez, Pablo

- ◆ Specialist Physician, Department of General and Digestive System Surgery, Ramón y Cajal University Hospital (Madrid). Esophagogastric, Bariatric and Minimally Invasive Surgery Unit (January 2015-present).
- ◆ PhD in Medicine from the University of Miguel Hernández de Elche (2013). (Outstanding Cum Laude).
- ◆ Fellowship in Gastric Oncology Surgery in the Gastric Cancer Department at Cancer Institute Hospital (Tokyo) with Professor Takeshi Sano (July 2018).
- ◆ Fellowship in Esophagogastric and Minimally Invasive Oncological Surgery in the Division of Esophageal and Upper Gastrointestinal Surgery at Queen Mary Hospital, Hong Kong with Professor Simon Law (January-March 2014).
- ◆ Degree in Medicine from the Complutense University Madrid (1996 - 2002).
- ◆ Master's Degree in Advanced Laparoscopic Surgery. University of Alcalá (2007).
- ◆ Master's Degree in Clinical Management, Medical, and Welfare Management. University of CEU(2019)
- ◆ Medical Specialist in the Department of General and Digestive System Surgery at the General Hospital of Villalba (Madrid). Esophagogastric and Bariatric Surgery Unit (Oct 2014- Dec 2014).
- ◆ Medical Specialist in the Department of General and Digestive System Surgery at the General University Hospital of Castellón. Esophagogastric, Hepatobiliopancreatic and Thoracic Surgery Unit (Jun 2008-Sep 2014).



### Dr. Ruiz-Tovar Polo, Jaime

- ◆ Bariatric Surgeon in the Centre for Excellence for the Study and Treatment of Obesity. Valladolid. Bariatric Surgery Unit (2017-2020).
- ◆ Faculty Specialist in the Bariatric Surgery Unit. Rey Juan Carlos University Hospital, Madrid (2014-2020).
- ◆ Coordinator of the Bariatric Surgery Unit. Elche University General Hospital(2010 -2014)
- ◆ Specialist in General and Digestive Surgery. Henares University Hospital Madrid (2019-2020)
- ◆ Doctorate in Medicine from the Autonomous University Madrid
- ◆ Degree in Medicine from the Autonomous University of Madrid.
- ◆ Master's Degree in Advanced Laparoscopic Surgery. University of Alcalá
- ◆ Specialist in General and Digestive System Surgery
- ◆ Diploma of Expert Level Competence by the Spanish Society of Obesity Surgery (SECO).
- ◆ Diploma in Obesity and Metabolic Diseases Surgery. European Accreditation Council for Bariatric Surgery of IFSO. 2000 hours.

## Professors

### Dr. Lévano Linares, Dennis César

- ♦ Specialist in General and Digestive System Surgery. Rey Juan Carlos University Hospital and Jiménez Díaz Foundation University Hospital (February 2018- present)
- ♦ PhD in Medicine from the Autonomous University Madrid.(UAM) 2020. Outstanding CUM LAUDE.
- ♦ Master's Degree in Colorectal and Pelvic Floor Surgery from the University of Zaragoza (2019).
- ♦ Homologation to Degree in Medicine and Surgery by the Ministry of Science and Innovation in 2008.
- ♦ Medical Surgeon Degree from San Martin de Porres University in Lima (2007).
- ♦ Specialist in General and Digestive System Surgery. Collado Villalba General Hospital (2016 - 2017)
- ♦ Official Title of Medical Specialist in General Surgery and Digestive System. Jiménez Díaz Foundation Hospital
- ♦ University Diploma in Laparoscopic Surgery. Louis Pasteur University. Strasbourg
- ♦ European Accreditation in Laparoscopic Surgery by the European Association of Continuing Medical Education (EACCME).
- ♦ Training in Minimally Invasive Surgery by IRCAD - EITS. University of Strasbourg

### Dr. Solar Peche, Alfonso

- ♦ General Surgery and Laparoscopy Doctor, Staff at San Pablo Hospital Complex. San Pablo Clinic, Sede Surco, since July 2019- present.
- ♦ Professional degree in Surgical Medicine from the Faculty of Human Medicine at San Marcos National Higher University, March 22, 2013.
- ♦ Second Professional Speciality Degree in General Surgery from the Faculty of Human Medicine at San Marcos National Higher University, December 6, 2017.
- ♦ Master's Degree in Health Services Management, Faculty of Medicine from San Martin de Porres University, from 1st June 2020.
- ♦ Essalud Medical Internship Program 2012 at the Edgardo Rebagliati Martins National Hospital, January 1, 2012 - December 31, 2012.
- ♦ Doctor SERUMS at the Santiago de Pichus Health Post, Microred Pazos, Tayacaja Health Network, DIRESA Huancavelica from May 06, 2013 to May 05, 2014, Directorial Resolution N°791-2013/GOB.REG-HVCA/DIRESA granted on May 28, 2014.
- ♦ Resident Doctor of General Surgery, San Marcos National Higher University, Il Vitarte EsSalud Hospital, Red Desconcentrada Almenara, from July 1, 2014 to June 30, 2017.
- ♦ Assistant Physician of General Surgery and Transplantation at the National Hospital Guillermo Almenara Irigoyen EsSalud, in the Liver Transplant Service of the Department of Transplantation, from December 30, 2017 to the present.



**Dr. Santos Benito, Francisco Fernando**

- ♦ General and Digestive System Private Surgeon. Virgen de Fátima de Vigo Hospital, La Rosaleda de Santiago de Compostela and currently Quirón-Domínguez Hospital in Pontevedra.
- ♦ Degree in Medicine and Surgery, 1993, Faculty of Medicine. University of Salamanca.
- ♦ PhD in Medicine and Surgery, 1998, Department of Surgery, Faculty of Medicine. University of Salamanca.
- ♦ Specialist in General and Digestive System Surgery through the RMI program at Clinical University Hospital, Salamanca.
- ♦ Master's Degree in Laparoscopic Surgery. Institute of Digestive Diseases in the Foundation Clinic, University Clinical Hospital of Barcelona.
- ♦ Master's Degree in Pancreatic and Esophageal Surgery. Hammersmith University Hospital, London.
- ♦ Master's Degree in Laparoscopic Surgery. Montpellier University Hospital.
- ♦ Clinical Assistant at Amato Lusitano de Castelo Branco Hospital - Coimbra. (Until 2002)
- ♦ Clinical Assistant at Santiago de Compostela University Clinical Hospital - La Coruña.
- ♦ Head of the Surgical Performance Unit. Virgen de Fátima de Vigo Hospital – Pontevedra.
- ♦ Registered activity in Pontevedra and La Coruña, number 15/3705782.

**Dr. Castellón Pavón, Camilo**

- ♦ Associate Chief at Rey Juan Carlos Hospital (Móstoles) from March 16, 2018 to present.
- ♦ Degree in Medicine and Surgery. Autonomous University of Madrid (1992).
- ♦ Doctor of Medicine. Complutense University of Madrid. Madrid 2006.
- ♦ Specialist in General and Digestive System Surgery.
- ♦ Expert in Health Management from the European Institution of Health and Social Wellbeing (2007).
- ♦ ESADE Professional Master's Degree in Being a leader at Quirónsalud (2017).
- ♦ Resident Tutor of the General Surgery Service at Rey Juan Carlos University Hospital (Móstoles) from December 2019.

**Dr. Durán, Carlos**

- ♦ Head of the General and Digestive System Surgery Department at La Luz Quirón Hospital. Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University Madrid (1977/1983).
- ♦ Specialist in General and Digestive Surgery at the Hospital De La Princesa in Madrid. Dr Modesto Martínez Piñeiro Service. (1988)
- ♦ Member of different scientific societies:
- ♦ Spanish Society of Surgery.
- ♦ Spanish Society of Obesity Surgery.
- ♦ International Federation for Surgery of Obesity and Metabolic Disorders (ISFO) since 2008
- ♦ Inguinal hernia surgeon (transabdominal approach - TAPP), colo-rectal surgery by single port and obesity surgery, collaborating in the teaching of these techniques to various surgeons who have come to the service.

**Dr. Balagué Ponz, M Carmen**

- ♦ Attending Physician for General and Digestive Surgery Services at Hospital de la Sta. Creu i Sant Pau in Barcelona.
- ♦ Coordinator of the Functional Unit of Bariatric and Metabolic Surgery of the Hospital de la Sta. Creu i Sant Pau in Barcelona.
- ♦ Degree in Medicine and Surgery from the University of Barcelona. 1,989
- ♦ Specialist in General and Digestive Surgery. MIR 1991-95. Barcelona Clinical Hospital
- ♦ PhD in Medicine and Surgery from the University of Barcelona. 1,998
- ♦ Attending Physician for General Surgery Services at Clinical Hospital Barcelona. 1999-2002.
- ♦ Professor of Surgery at UD Sant Pau. Autonomous University of Barcelona (2007).

**Dr. Picardo, Antonio L.**

- ♦ Head of the Surgery at Infanta Sofía University Hospital. San Sebastián de los Reyes, Madrid.
- ♦ Professor of Surgery. European University of Madrid
- ♦ PhD in Medicine and Surgery Faculty of Medicine. Surgery Department. Complutense University of Madrid. Madrid. Grade. Outstanding Award.
- ♦ Degree in Medicine and Surgery. Faculty of Medicine. Autonomous University. Madrid. Grade. Outstanding.
- ♦ Specialist in General and Digestive System Surgery. RMI program. San Carlos University Hospital. Madrid.
- ♦ Certificate from the Educational Commission for Foreign Medical Graduates (ECFMG).
- ♦ Research Fellowship in Surgical Oncology. Surgery Department. Memorial Sloan-Kettering Cancer Center. New York, USA.
- ♦ ANECA Accreditation.
- ♦ European Board Certificate in Endocrine Surgery.
- ♦ SECO Accreditation (Spanish Society of Obesity Surgery). Competency Level: EXPERT

**Dr. Cuadrado Ayuso, Marta**

- ♦ Faculty Area Specialist Ramón y Cajal Hospital (2016- present). Esophagogastric and Bariatric Surgery Unit
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid (2010)
- ♦ Master's Degree in Update on General and Digestive System Surgery, Cardenal Herrera University CEU (2020)
- ♦ Specialist in General and Digestive System Surgery, Gregorio Marañón General University Hospital (2016).
- ♦ Facultative Area Specialist at El Escorial Hospital (2016).
- ♦ Faculty Specialist in the private field, Torrelodones (2016).
- ♦ Faculty Specialist in the private field, La Luz Hospital (2019).

**Dr. García Gómez de las Heras, Soledad**

- ♦ Degree in Medicine and Surgery (June 1998), Faculty of Medicine at the Complutense University of Madrid.
- ♦ PhD in Medicine and Surgery (June 2002, Outstanding Cum Laude), Faculty of Medicine at the Complutense University of Madrid.
- ♦ Doctor Professor in Human Histology and Pathological Anatomy, Faculty of Health Sciences, Rey Juan Carlos University, since October 2006- present.
- ♦ Doctor Professor in Human Anatomy, Faculty of Health Sciences, Rey Juan Carlos University, since October 1999- October 2006.
- ♦ Professor of Human Histology module in Medicine Degree since the academic course 2009-2010 where she continues to do most of her teaching.
- ♦ Professor of Cell Biology and Human Histology in Nursing, Physiotherapy and Dentistry degrees from September 2006 to June 2009.
- ♦ Professor of Human Anatomy in Nursing, Physiotherapy and Dentistry degrees from 1999 to June 2006.

**Dr. Pagán Pomar, Alberto**

- ◆ Clinical Chief of the Esophagogastric and Morbidly Obese Surgery Unit. General and Digestive System Surgery Department. Son Espases University Hospital Palma, 2015-present.
- ◆ Founder of Integral Centre of Nutrition of the Balearic Islands (CINIB). Palma, 2015-present.
- ◆ DamiáCarbó 2020 Award from the Official College of Physicians of the Balearic Islands: "Biliopancreatic diversion in the surgical treatment of morbid obesity. Long-term results and metabolic consequences". Authors: Bianchi A, Pagán A, Marina Jiménez, José Antonio Martínez, Francesc Xavier González.
- ◆ Degree in Medicine and Surgery from the Autonomous University of Barcelona in 1983.
- ◆ Specialization in Clinical Management. Balearic Islands Official Medical College, 2003-2004.
- ◆ On Line Course of Fundamentals in Bariatric and Metabolic Surgery. SECO, 2009-2010
- ◆ University expert in Management and Use of Minimally Invasive Technologies in Surgery. Complutense University of Madrid, 2004-2005.
- ◆ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis, and Integral Treatment. Rey Juan Carlos University, Alcorcón (2017-2018)

**Dr. El Mehdi Skalli**

- ◆ 1995– 2003: Medicine Studies at the Faculty of Medicine and Rabat Pharmacy.
- ◆ 2nd June 2003: Medicine Studies at the Faculty of Medicine and Rabat Pharmacy.
- ◆ 30th April 2010 Diploma in Specialized Studies (DES) in General Surgery from the Faculty of Medicine in Montpellier.
- ◆ 28th October 2011: Diploma in Additional Specialized Studies (DESC) in Visceral and Digestive Surgery from the Faculty of Medicine in Montpellier.

**Dr. Bruna Esteban, Marcos**

- ◆ Facultative Area Specialist. Section of Esophagogastric Surgery and Peritoneal Carcinomatosis. General and Digestive System Surgery Department.
- ◆ Doctor of Medicine, Outstanding Cum Laude, from the University of Valencia (2015).
- ◆ Degree in Medicine from the Faculty of Medicine at the Autonomous University of Madrid 2003.
- ◆ RMI training in General and Digestive System Surgery, obtaining the qualification EXCELLENT in the Consorcio General University Hospital of Valencia in 2009.
- ◆ Advanced Studies Diploma (2007) from the University of Valencia in the Department: Surgery and its Specialities.
- ◆ Full Training Level Diploma of Competence from the Spanish Society of Obesity Surgery (2016).
- ◆ Faculty Specialist Physician (FEA), Section of Esophagogastric Surgery, Morbid Obesity and Abdominal Wall. General and Digestive System Surgery Department: Consorcio General University Hospital of Valencia from 3rd June 2009 until 1st March 2019.
- ◆ Coordinator of Transplant Unit. Center: Consorcio General University Hospital of Valencia from April 2013 until 1st March 2019.
- ◆ Chair of the Esophagogastric Surgery Section of the Spanish Association of Surgeons from January 2019 to November 2020.
- ◆ Secretary of the Esophagogastric Surgery Section of the Spanish Association of Surgeons from January 2015 to November 2019.
- ◆ Coordinator of Esophagogastric Surgery Working Group in the Spanish Multimodal Rehabilitation Group (GERM) from January 2016 to present.

**Dr. Zúñiga Ruiz, Alejandro**

- ♦ In charge of the Emergency Department at Doctors Hospital East, Guadalupe Nuevo Leon, Mexico.
- ♦ General Surgeon in General Surgery Department at the General Hospital in Zone 2 of the Mexican Institute of Social Security in Apizaco; Tlaxcala, Mexico.
- ♦ General Surgeon in the General Surgery Department in Institute of State Security and Social Services in Zona Tlaxcala General Hospital; Mexico.
- ♦ Specialist in Bariatric and Metabolic Surgery from the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico.
- ♦ Specialist in General Surgery at the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico.
- ♦ Bachelor's Degree in Surgery and Midwifery, Autonomous University of Nuevo Leon, Monterrey, Mexico.
- ♦ Certification in Bariatric and Metabolic Surgery from the Mexican Council of General Surgery A.C. (2020).
- ♦ High Speciality Course in Bariatric and Metabolic Surgery from the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico.(2019- 2020).

**Mrs. Llaveró Garrido, Carolina**

- ♦ Operating Room, Resuscitation and CMA Service. Southeast Hospital Arganda del Rey (Madrid). (2008– present.)
- ♦ Collaborating researcher in several research lines developed in bariatric surgery and obesity.
- ♦ Diploma in Nursing from the Alfonso X University

**Dr. Sartal Cuñarro, M<sup>a</sup> Isabel**

- ♦ Degree in Medicine from the Faculty of Medicine at the University of Santiago de Compostela, A Coruña. 2000-2006
- ♦ 2007 - 2012: Specialist training in General and Digestive System Surgery via RMI in the Santiago de Compostela University Hospital Complex between May 2007 and May 2012.
- ♦ 2009 - 2011: Completion of doctoral courses: Advances in Surgery, Anesthesia and Ophthalmology. Diploma of Advanced Studies from the University of Santiago de Compostela with work on "Emergency Treatment of Colon Cancer". Surgery Department. University of Santiago de Compostela. RD 185/1985, 778/1998.
- ♦ 2017: Cum Laude in the Doctoral Thesis "Treatment of rectal cancer by laparoscopic surgery: applicability and results". Surgery Department. University of Santiago de Compostela.
- ♦ 2018 - 2019: Professional Master's Degree in General and Digestive System Surgery. Taught and accredited by Cardenal Herrera University with 60 credits and 1500 hours.
- ♦ 2019 - 2020: Master's Degree in Legal and Forensic Medicine. Taught and accredited by Cardenal Herrera University with 60 credits and 1500 hours.
- ♦ 2002: Internship in Microbiology and Biochemistry Laboratories at Pontevedra Hospital Complex.
- ♦ 2003 - 2004: Clinical Practice in Emergency Services at Pontevedra Hospital Complex.

**Dr. Escartí Usó, Miguel Ángel**

- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ PhD in Medicine from the University of Valencia
- ♦ Specialist in General and Digestive System Surgery
- ♦ Master's Degree in Emergency Surgery.
- ♦ Skills Diploma by the Spanish Society of Obesity Surgery (SECO).
- ♦ Accreditation for Robotic Surgery in Obesity.
- ♦ 16 years of exclusive dedication to bariatric surgery.
- ♦ More than 2200 cases of obesity surgery performed to date
- ♦ Medical Director of IntraObes (Spain's leading private obesity surgery group).
- ♦ Bariatric Surgery Unit at HLA Moncloa University Hospital (Madrid) and HLA- La Vega University Hospital (Murcia).

**Dr. Puigdevall Gallego, Víctor**

- ♦ Doctor of Medicine and Surgery.
- ♦ Specialist in Endocrinology and Nutrition in Soria Hospital Complex.
- ♦ Associate Professor in Valladolid University (academic courses 2005-2021)

**Dr. Bordallo Cortina, Alberto**

- ♦ Degree and PhD in Medicine and Surgery
- ♦ Specialist in General and Digestive System Surgery
- ♦ Bariatric and metabolic surgeon. SECO Diploma.
- ♦ Head of the Surgery Department of the HLA Hospital, Denia (Spain).
- ♦ He has performed more than than 5,000 laparoscopic procedures.
- ♦ Chief Surgeon of IntraObes Denia

**Dr. Oliver, José Ramón**

- ♦ General and Digestive System Surgery Service, Soria Healthcare Complex

**Dr. Miras, José Manuel**

- ♦ General and Digestive System Surgery Department at La Luz Quirón



# 04

# Structure and Content

The contents of this Postgraduate Diploma have been developed by the different experts involved in the program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field. A complete and well-structured program that will take you to the highest standards of quality and success.





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*A comprehensive teaching program, structured in well-developed teaching units, oriented toward learning that is compatible with your personal and professional life”*



## Module 1 General Aspects of Obesity

- 1.1. Obesity and Overweight
  - 1.1.1. Introduction
  - 1.1.2. Definition of Obesity
  - 1.1.3. Epidemiology
  - 1.1.4. Pathophysiology
  - 1.1.5. Energy Intake
  - 1.1.6. Metabolism and Energy Expenditure
  - 1.1.7. Mechanisms of Action in the Update on Bariatric Surgery
  - 1.1.8. Etiology: Genetics and Epigenetics of Obesity Syndromes with Dysmorphic Obesity
  - 1.1.9. Initial Evaluation of Obesity
    - 1.1.9.1. Body Mass Index
    - 1.1.9.2. Waist Circumference
    - 1.1.9.3. Body Fat Percentage
    - 1.1.9.4. Other Parameters
  - 1.1.10. Patient Risk Evaluation
- 1.2. Major Comorbidities
  - 1.2.1. Definition of Major and Minor Comorbidity
  - 1.2.2. Diabetes Mellitus Type 2
    - 1.2.2.1. Prediabetes and Diabetes: Definition
    - 1.2.2.2. Dietary Treatment
    - 1.2.2.3. Oral Anti-diabetic Treatment
    - 1.2.2.4. Insulin Treatment
    - 1.2.2.5. Target Organ Involvement: Signs and Symptoms
  - 1.2.3. Hyperlipidemia
    - 1.2.3.1. Total Cholesterol
    - 1.2.3.2. HDL and LDL
    - 1.2.3.3. Triglycerides
  - 1.2.4. Cardiovascular
    - 1.2.4.1. Cardiac: Ischemic Heart Disease
    - 1.2.4.2. Vascular
      - 1.2.4.2.1. Venous Stasis with Increased Risk of DVT/PTE
      - 1.2.4.2.2. High Blood Pressure



- 1.2.5. Metabolic Syndrome
- 1.2.6. Respiratory: Hypoventilation Syndrome and Apnea-hypopnea Syndrome
- 1.2.7. Load-bearing Arthropathy: Definition and Common Injuries
- 1.2.8. Infertility
- 1.3. Minor Comorbidities
  - 1.3.1. Digestive
    - 1.3.1.1. Hepatic Steatosis, Steatohepatitis and Cirrhosis
    - 1.3.1.2. Colelithiasis, Colectistitis
    - 1.3.1.3. Gastroesophageal Reflux Diseases
  - 1.3.2. Obesity and Cancer: Incidence
  - 1.3.3. Asthma
  - 1.3.4. Hypothyroidism
  - 1.3.5. Incontinence
  - 1.3.6. Psychological Alterations (Major or Minor?)
  - 1.3.7. Other Minor Comorbidities
- 1.4. Dietary and Pharmacological Treatment
  - 1.4.1. Dietary Treatment
    - 1.4.1.1. Introduction
    - 1.4.1.2. Food plan Dietary Treatment
    - 1.4.1.3. Distribution of Macronutrients in the Diet
    - 1.4.1.4. Modification of Diet Structure
    - 1.4.1.5. General Recommendations for Hypocalorie Diets
  - 1.4.2. Pharmacological Treatment
    - 1.4.2.1. Types of Drugs
    - 1.4.2.2. Drugs Which Affect Appetite and Fullness
    - 1.4.2.3. Drugs that Work on a Gastrointestinal Level
    - 1.4.2.4. Thermogenic Drugs
    - 1.4.2.5. Other Drugs
    - 1.4.2.6. Medication being Researched
    - 1.4.2.7. Therapeutic Algorithms
- 1.5. Physical Activity
  - 1.5.1. Program Objectives
  - 1.5.2. Types of Exercise
  - 1.5.3. Frequency, Duration and Intensity
  - 1.5.4. Behaviour Modification
- 1.6. Indications of Endoscopic and Surgical Treatments
  - 1.6.1. According to BMI
  - 1.6.2. According to Previous Surgery
  - 1.6.3. According to Associated Comorbidities
  - 1.6.4. Listening to the Patient
  - 1.6.5. Therapeutic Algorithms
- 1.7. Preoperative Study
  - 1.7.1. Basic Preoperative Process
  - 1.7.2. Study of the Upper Digestive Tract: Endoscopy vs Rx
  - 1.7.3. Study and eradication of Helicobacter Pylori: When and How
  - 1.7.4. ASMBS Micronutrient Survey and Grades of Recommendations
  - 1.7.5. Indications from Other Studies
    - 1.7.5.1. Respiratory: Functional Respiratory Tests and Polysomnography
    - 1.7.5.2. Digestive: Ultrasound and CAT
    - 1.7.5.3. Cardiac: ECG and Stress Test
    - 1.7.5.4. Movement: Antigravity Treadmill Test
    - 1.7.5.5. DMT2 Hb Glycated A1, Pancreatic Reserve, and Pancreatic Antibodies
    - 1.7.5.6. Studies of Venous Circulation in Lower Limbs
  - 1.7.6. Pre-anaesthesia Assessment in the Update on Bariatric Surgery
- 1.8. Pre-surgery Preparation
  - 1.8.1. Pre-surgery Preparation
  - 1.8.2. Duration, Objectives and Scientific Evidence Related to Preparation
  - 1.8.3. Liquid Diet
  - 1.8.4. Physical Activity
  - 1.8.5. Respiratory Physiotherapy and Tobacco Consumption
  - 1.8.6. Study and Control of Arterial Hypertension
  - 1.8.7. Blood Glucose Control in the Update on Bariatric Surgery
- 1.9. Surgical Technique Selection
  - 1.9.1. According to BMI
  - 1.9.2. According to Psychological and Nutritional Profile
  - 1.9.3. According to Associated Comorbidities
  - 1.9.4. Listening to the Patient
  - 1.9.5. Recommended Algorithm

- 1.10. Indications and Technique Selection in Special Groups
  - 1.10.1. Adolescents and Children
    - 1.10.1.1. Children vs Adolescents: How to Identify Them
    - 1.10.1.2. Bridging vs. Definitive Techniques: for Whom and Which Ones?
  - 1.10.2. Over 60
    - 1.10.2.1. How to Differentiate between Biological Age and Theoretical Age
    - 1.10.2.2. Specific Techniques for >60s
  - 1.10.3. IMC 30-35
    - 1.10.3.1. Indication for surgery
    - 1.10.3.2. Surgical Defects
  - 1.10.4. Other Borderline Patients
    - 1.10.4.1. BMI <30 and DMT2
    - 1.10.4.2. BMI 30-35 and C-peptide=0
    - 1.10.4.3. BMI 30 and 35 and DMT1
    - 1.10.4.4. Over 70
    - 1.10.4.5. HIV Patients
    - 1.10.4.6. Liver Cirrhosis Patients

## Module 2. Endoscopic and Percutaneous Treatments in Obesity

- 2.1. Intra-gastric balloon (Oballon, ELIPSE)
  - 2.1.1. Definition
  - 2.1.2. Technique
  - 2.1.3. Results
  - 2.1.4. Complications
- 2.2. Endobarrier
  - 2.2.1. Definition
  - 2.2.2. Technique
  - 2.2.3. Results
  - 2.2.4. Complications
- 2.3. Vertical Endoluminal Gastroplasty (EndoCinch)
  - 2.3.1. Definition
  - 2.3.2. Technique
  - 2.3.3. Results
  - 2.3.4. Complications
- 2.4. Transoral Gastroplasty (TOGA)
  - 2.4.1. Definition
  - 2.4.2. Technique
  - 2.4.3. Results
  - 2.4.4. Complications
- 2.5. POSE
  - 2.5.1. Definition
  - 2.5.2. Technique
  - 2.5.3. Results
  - 2.5.4. Complications
- 2.6. Endoscopic Plication (Apollo)
  - 2.6.1. Definition
  - 2.6.2. Technique
  - 2.6.3. Results
  - 2.6.4. Complications
- 2.7. Gastric Electrical Stimulation (Gastric Pacemaker)
  - 2.7.1. Definition
  - 2.7.2. Technique
  - 2.7.3. Results
  - 2.7.4. Complications
- 2.8. Neurostimulation of the Dermatomes of the Abdomen
  - 2.8.1. Definition
  - 2.8.2. Technique
  - 2.8.3. Results
  - 2.8.4. Complications



- 2.9. ASPIRE Method
  - 2.9.1. Definition
  - 2.9.2. Technique
  - 2.9.3. Results
  - 2.9.4. Complications
- 2.10. Uncommon Methods (Lingual Mesh, Surgiclip)
  - 2.10.1. Definition
  - 2.10.2. Techniques
  - 2.10.3. Results
  - 2.10.4. Complications

### Module 3. Surgical Treatment of Morbid Obesity

- 3.1. History of Surgical Treatment of Morbid Obesity
  - 3.1.1. Historical Background in Ancient Times
  - 3.1.2. Beginning of Obesity Surgery in the Modern Era
  - 3.1.3. Current Use of Bariatric and Metabolic Surgery
- 3.2. Adjustable Gastric Band
  - 3.2.1. Introduction
  - 3.2.2. Surgical Technique
  - 3.2.3. Results
  - 3.2.4. Postoperative Complications
- 3.3. Vertical Gastrectomy
  - 3.3.1. Introduction
  - 3.3.2. Surgical Technique
  - 3.3.3. Results
  - 3.3.4. Immediate postoperative complications.
- 3.4. Gastric Bypass Roux-en-Y
  - 3.4.1. Introduction
  - 3.4.2. Surgical Technique
  - 3.4.3. Results
  - 3.4.4. Immediate postoperative complications.
- 3.5. Gastric Bypass of One Anastomosis
  - 3.5.1. Introduction
  - 3.5.2. Surgical Technique
  - 3.5.3. Results
  - 3.5.4. Immediate postoperative complications.
- 3.6. Biliopancreatic Diversion
  - 3.6.1. Introduction
  - 3.6.2. Surgical Technique
  - 3.6.3. Results
  - 3.6.4. Immediate postoperative complications.
- 3.7. Duodenal Crossover
  - 3.7.1. Introduction
  - 3.7.2. Surgical Technique
  - 3.7.3. Results
  - 3.7.4. Immediate postoperative complications.
- 3.8. SADIS
  - 3.8.1. Introduction
  - 3.8.2. Surgical Technique
  - 3.8.3. Results
  - 3.8.4. Immediate postoperative complications.
- 3.9. Nissen Sleeve
  - 3.9.1. Introduction
  - 3.9.2. Surgical Technique
  - 3.9.3. Results
  - 3.9.4. Immediate postoperative complications.
- 3.10. Other techniques: SAGIS/SASI, Intestinal Bipartition, Gastric Plication, Banding Techniques...
  - 3.10.1. Introduction
  - 3.10.2. Surgical Technique
  - 3.10.3. Results
  - 3.10.4. Immediate postoperative complications.

05

# Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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 Re-learning, 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

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. Gervas, 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 the physician's professional practice.



“

*Did you know that this method was developed in 1912 at Harvard for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only 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.*



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 training, 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

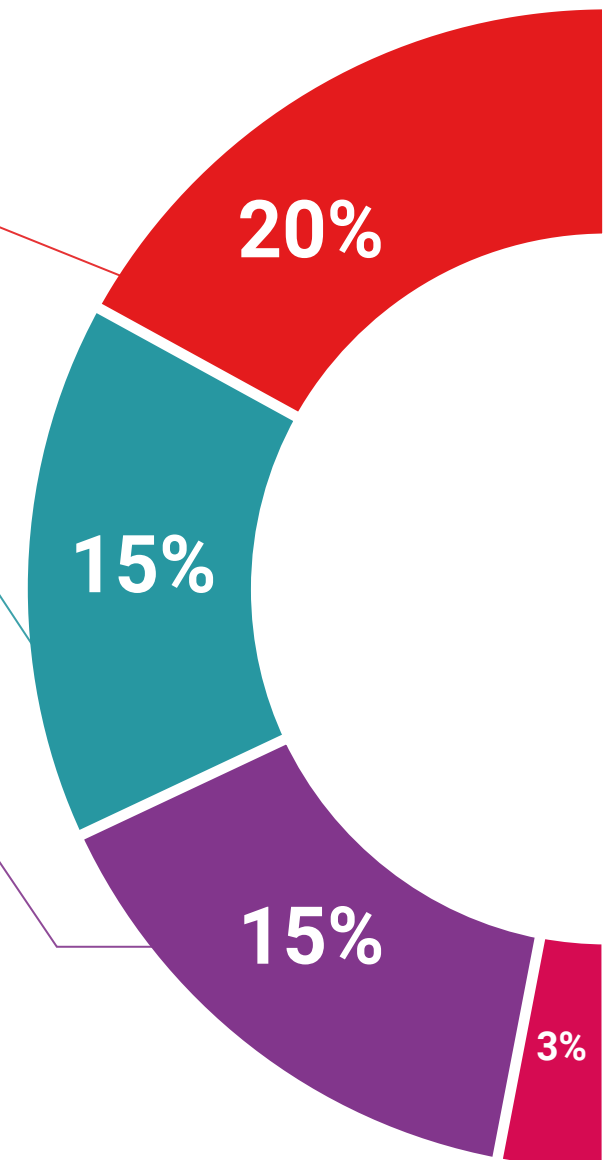
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

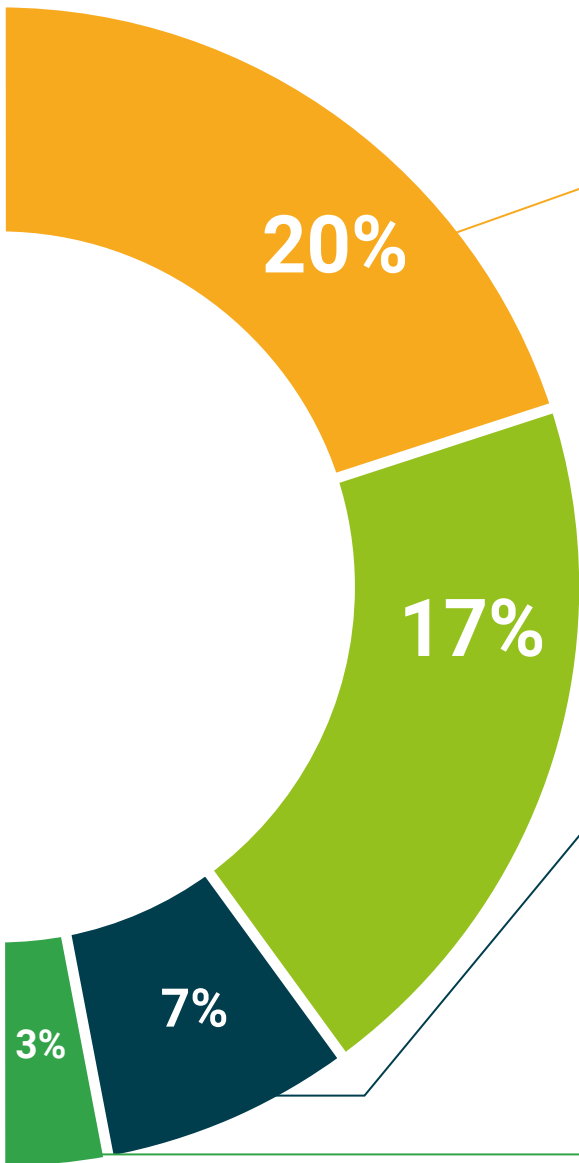
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 & Retesting

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.



# 06 Certificate

This Postgraduate Diploma in Endoscopic and Percutaneous Treatments. Surgical Treatment for Obesity guarantees, in addition to the most rigorous and updated training, access to a qualification issued by TECH Global University.





“

*Successfully complete this specialisation and receive your university degree without travel or laborious paperwork”*

This program will allow you to obtain your **Postgraduate Diploma in Endoscopic and Percutaneous Treatments. Surgical Treatment for Obesity** 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.

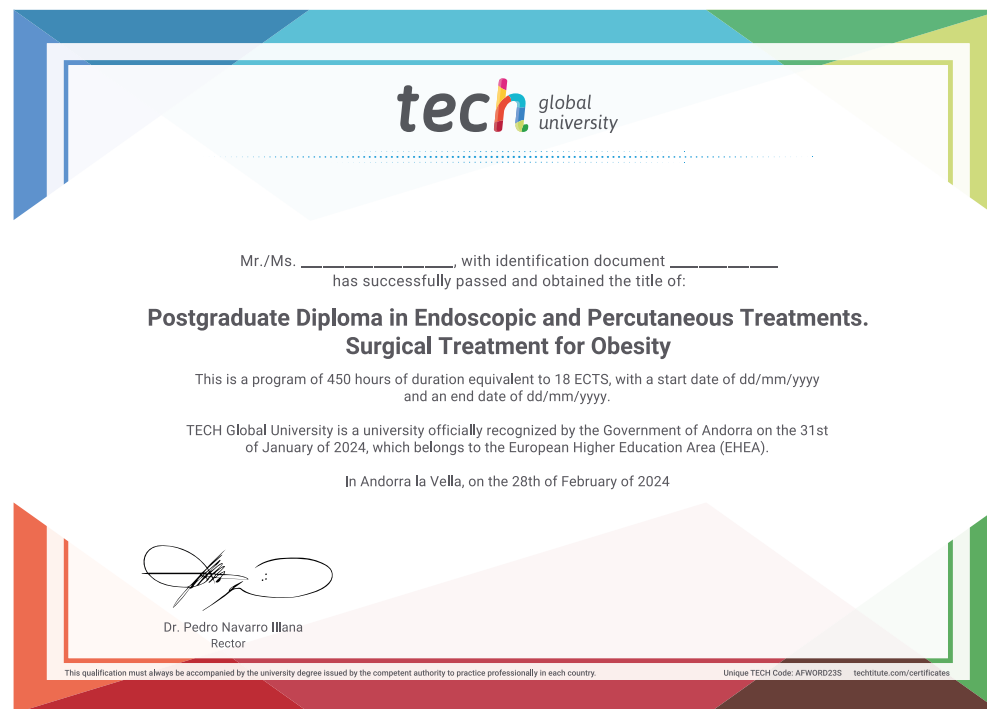
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Endoscopic and Percutaneous Treatments. Surgical Treatment for Obesity**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



\*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.



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**Postgraduate Diploma**  
Endoscopic and  
Percutaneous Treatments.  
Surgical Treatment  
for Obesity

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

# Postgraduate Diploma

Endoscopic and Percutaneous Treatments.  
Surgical Treatment for Obesity