



# Postgraduate Certificate

Perioperative Management for Obesity

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/perioperative-management-obesity

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# tech 06 | Introduction

Current evidence has shown that the implementation of ERAS protocols in bariatric surgery is safe, without increasing the rate of complications or hospital readmissions. Moreover, they have been shown to reduce the incidence of postoperative vomiting, reduce pain and shorten hospital stays.

In Spain, the Spanish Multimodal Rehabilitation Group has created a bariatric surgery Working Group, which has drawn up a multidisciplinary action protocol updated biannually. Several studies in Spain have already demonstrated the safety and efficacy of ERAS protocols in bariatric surgery. This training is a unique opportunity as this Postgraduate Certificate 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 Certificate.

This **Postgraduate Certificate in Perioperative Management for Obesity** offers you the advantages 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 training program with which you can achieve professional success.

# Introduction | 07 tech



The professors for this Postgraduate Certificate 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. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professors with training and experience in different settings, who will develop theoretical knowledge effectively, but, above all, will bring their practical knowledge derived from their own experience to the course: 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 course. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

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.

Do not hesitate to take this training with us. You will find the best teaching material with virtual lessons.

This 100% online course will allow you to combine your studies with your professional work while expanding your knowledge in this field.







# tech 10 | Objectives



# **General Objectives**

- Define ERAS protocols in bariatric surgery.
- Break down the different sections within the protocol.
- Analyze the results obtained through the implementation of these protocols.
- Understand the importance of multidisciplinary management.





# Objectives | 11 tech



#### **Specific Objectives**

- · Analyze the role of each of the members of a multidisciplinary group.
- Establish the importance of information and patient participation in perioperative care.
- Evaluate the importance of creating protocols.
- Define the measures included in the ERAS protocols.
- \* Analyze the peculiarities of the ERAS protocols in bariatric surgery.
- Identify problems in the implementation of protocols.
- Develop strategies to promote universal implantation.
- Establish guidelines and advice for the reintroduction of physical activity after surgery.
- Understand the benefits of weight loss, nutritional optimization and comorbidity as preoperative measures in bariatric surgery.
- Know the guidelines for dietary treatment after bariatric surgery, depending on the type of surgery.
- Identify the specific nutritional risks in the perioperative period.



Achieve your goals by keeping up to date with the latest techniques and medical advances in the field of bariatric surgery through a highly demanding Postgraduate Certificate.





#### **International Guest Director**

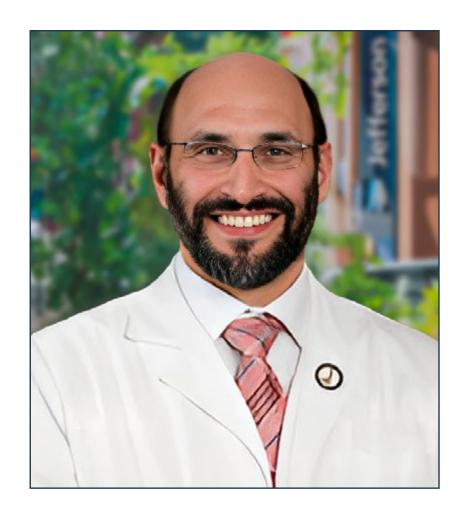
Dr. Alec Beekely is an international eminence in Bariatric and Metabolic Surgery. Throughout his career, this specialist has mastered the most disruptive tools and procedures to intervene patients with pathologies such as Morbid Obesity, Diabetes, among others. Thanks to his extensive experience and 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

- 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



# tech 16 | Course Management

#### 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). (Oustanding 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 Dgree 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

- Bariatrci 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 Dgree 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.

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#### **Professors**

#### Dr. García Marín, Andrés

- Specialist Physician in General and Digestive System Surgery at Hellín Hospital (Albacete) since December 2018.
- PhD in Medicine from the Miguel Hernandéz de Elche University 2017, with the qualification Oustanding Cum Laude.
- Degree in Medicine from the Complutense University of Madrid, 2004.
- Positive accreditation as Associate PhD Professor and Private University Professor from the National Agency for Quality Assessment and Accreditation (ANECA) in 2018.
- Master's Degree in Coloproctology (Colorectal and Pelvic Floor Surgery) from the University of Zaragoza (2016).
- University Expert in Health Law from University of Alicante (2015).
- Specialist in General and Digestive System Surgery. Gregorio Marañón General University Hospital, Madrid (2005-2010).
- Degree in Medicine from the Complutense University Madrid (1998 2004).
- Specialist Physician in General and Digestive System Surgery at San Juan de Alicante Hospital (June 2010- November 2018).

#### Pérez López, Mercedes

- Degree in Nursing from the University of Alicante (2014).
- Auxiliary Nursing Care Technician in 2009.
- Master's Degree in Emergencies and Disasters organized by TECH Education Rights and Technologies.
- Degree in Nursing from the University of Alicante.
- More than 40 courses, sponsored by the University of Castilla La Mancha and Catholic University of Avila
- Co-author of: 8 book chapters, 7 scientific articles and 22 communications to congresses

#### Dr. González Antigüedad, Cynthia

- Endocrinology at Gregorio Marañón General University Hospital. Morbid Obesity Monographic Consultation
- \* Collaborating Professor in Medicine at the Complutense University of Madrid.
- Degree in Medicine and Surgery from the San Pablo University CEU
- Specialist in Endocrinology and Diabetes at the Gregorio Marañón University Hospital in Madrid
- Postgraduate courses on Medicine- Health Sciences.
- \* Expert Course on Type 2 Diabetes from University of Alcalá
- Expert Course on Obesity and Metabolic Illnesses from the Editorial Médica Panamericana
- Member of the SEEDO Working Groups on Exercise-Obesity and Childhood Obesity.
- Member of the Diabetics Association of Madrid

#### Dr. Serrano Moreno, Clara

- Specialist in Endocrinology and Nutrition. Gregorio Marañón General University Hospital
- Faculty Specialist in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Resident Intern in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Degree in Medicine. Navarra University
- Master's Degree in Clinical Nutrition from the University of Granada.

# Course Management | 19 tech

#### Dr. Atencia Goñi, José

- Specialist in Endocrinology and Nutrition: Gregorio Marañón General University Hospital
- \* Division of Endocrinology, Metabolism, and Lipids. Emory University. Atlanta
- Degree in Medicine from the University of Navarra
- Update in the Management of Neuroendocrine Tumors" patroned by Novartis. Net Alliane Meeting Madrid
- TNE Refresher Course" sponsored by IPSEN. Face-to-Face Gregorio Marañón Hospital Madrid

#### Dr. Acín, Débora

- Attending Physician in General and Digestive System Surgery in the Fuenlabrada University Hospital (August 2011- present) Endocrine and Bariatric Surgery Unit
- PhD in Medicine from Rey Juan Carlos University, Madrid, with an Outstanding Cum Laude Qualification and Outstanding Award.
- Degree in Medicine and Surgery from the Autonomous University of Madrid in (2003).
- General and Digestive System Surgeon associated with the Jiménez Díaz Foundation (March 2011- October 2019)
- Rotation in Bariatric Surgery Unit at Bellvitge University Hospital, Barcelona (November 2011)
- Attending Physician in General and Digestive System Surgery in the Severo Ochoa de Leganés Hospital (April 2011- August 2011)
- Attending Physician in General and Digestive System Surgery in the Infanta Sofía de Parla Hospital (March 2011)
- General and Digestive System Surgery in the Infanta Sofía de Parla Hospital (February 2011 until May 2011)
- Attending Physician in General and Digestive System Surgery at Fuenlabrada University Hospital (May 2009- February 2011).



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#### Dr. González Ramírez, Gilberto

- Surgeon, Specialist in Gastrointestinal Surgery, Advanced Laparoscopy, Bariatric and Metabolic Surgery.
- Academic Training
- \* Surgeon and Midwife graduated from the University of Guadalajara, Jalisco, Mexico.
- \* Degree in Human Medicine from the University of Guadalajara.
- Specialist in general surgery and the digestive system, former Civil Hospital Fray Antonio Alcalde, University of Guadalajara.
- Bariatric and Metabolic Surgery
- Diploma in Obesity and Metabolic Disorders Surgery, Salvador Zubirán Institute of Medical Sciences, Mexico City.
- Diploma and Fellowship in Obesity and Diabetes Surgery, Valladolid, Spain.

#### Dr. Bolaños Muñoz, María de Lourdes

- Professor in the Neuropsychology Laboratory at the Neurosciences Institute.
- Degree in Clinical Psychology from the Autonomous University of Guadalajara.
- PhD in Behavioral Sciences, Neuroscience Orientation from the University of Guadalajara.
- Member of the National Society of Researchers (SNI) and National Researcher Candidate as of January 1, 2019.

#### Dr. Bretón Lesmes, Irene

- Specialist in Endocrinology and Nutrition
- Attending Physician in Endocrinology and Nutrition Department. Gregorio Marañón General University Hospital, Madrid.
- Member of the Obesity Unit at Monteprincipe University Hospital.

- Degree in Medicine and Surgery from the Autonomous University of Madrid.
- Doctor of Medicine and Surgery, from the Complutense University of Madrid.
- Specialist in Endocrinology and Nutrition.
- Master's Degree in Management of Endocrinology and Nutrition Care Units from the Menéndez Pelayo International University.
- Member of ESPEN Faculty.

#### Dr. García Marín, Andrés

- Specialist Physician in General and Digestive System Surgery at Hellín Hospital (Albacete) since December 2018.
- PhD in Medicine from the Miguel Hernandéz de Elche University 2017, with the qualification Oustanding Cum Laude.
- Degree in Medicine from the Complutense University of Madrid, 2004.
- Positive accreditation as Associate PhD Professor and Private University Professor from the National Agency for Quality Assessment and Accreditation (ANECA) in 2018.
- Master's Degree in Coloproctology (Colorectal and Pelvic Floor Surgery) from the University of Zaragoza (2016).
- University Expert in Health Law from University of Alicante (2015).
- \* Specialist in General and Digestive System Surgery. Gregorio Marañón General University Hospital, Madrid (2005- 2010).
- Degree in Medicine from the Complutense University Madrid (1998 2004).
- Specialist Physician in General and Digestive System Surgery at San Juan de Alicante Hospital (June 2010- November 2018).

#### Dr. García Villabona, Esther

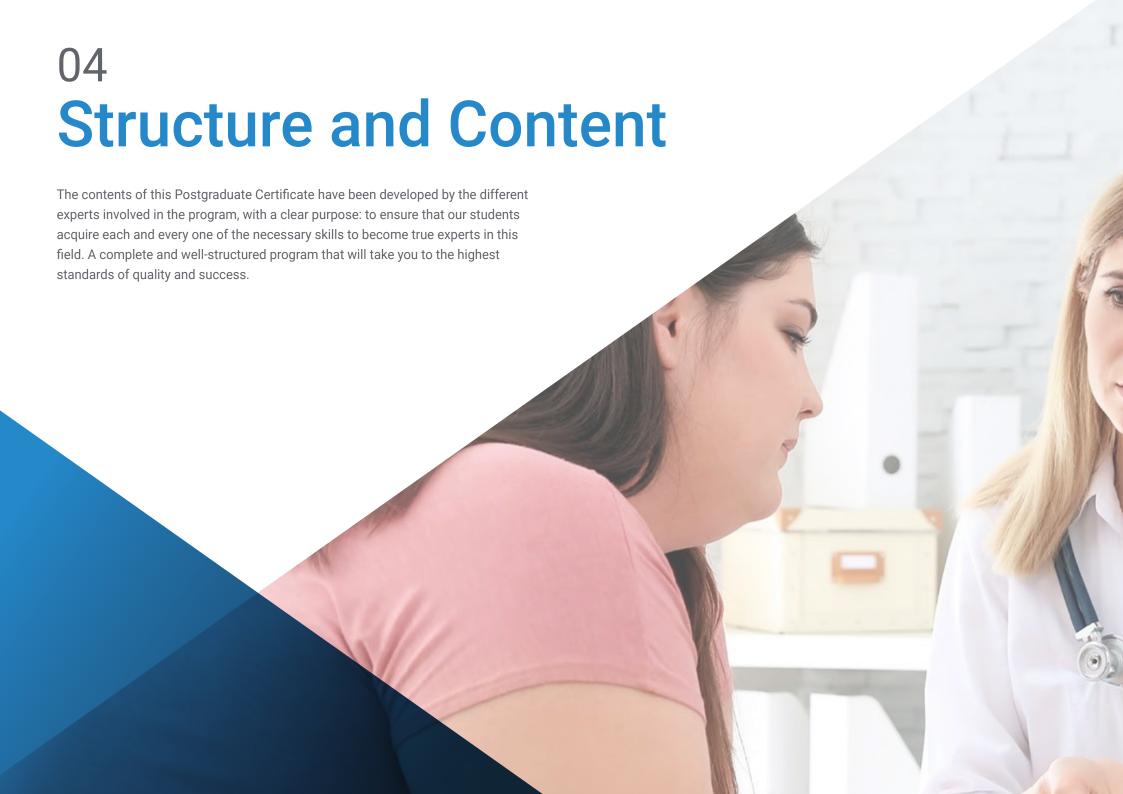
- Attending Physician (Anaethesiology, Resuscitation and Pain Treatment) La Princesa University Hospital.
   Degree in Medicine: University of Salamanca (1999- 2005).
- Specialized Training in Medicine: Resident of Anesthesiology, Resuscitation, and Pain Management. La Princesa University Hospital Madrid. 2006 2010.
- Resident Intern in La Princesa University Hospital. May 2006- May 2010. External Rotations at La Paz University Hospital: -
- Maternity: 2 months (Jan-Feb 2008) Infant: 3 months (Oct-Dec 2009)
- External Rotation at Gregorio Marañón University Hospital:
- PCU Rotation (Postoperative Care Cardiac Surgery). February-March 2010. External Rotation in "Memorial Sloan-Kettering Cáncer Center" Hospital (New York): Thoracic Surgery, ICU, Pain Unit. Duration 2 months: June-Julio 2009.

#### Hernández García, Artur Marc

- Coordinator of the exercise program for bariatric patients at Miguel Hernández University.
- Degree in Physical Activity and Sports Science from the University of Valencia (2012).
- \* Master in Performance and Health from Miguel Hernández University (2013).
- PhD in Health Psychology from Miguel Hernández University (2017).
- Project Researcher Physiological and Psychological Effects of Exercise in Patients
  Put Forward for Bariatric Surgery. Development of study design, coordination
  and supervision of the training sessions, data collection, statistical analysis and
  document writing.

#### Dr. Vallejo, Carmen

- \* Resident of Anesthesiology and Resuscitation at the La Princesa Hospital.
- Degree in Medicine. Autonomous University of Madrid (2001-2007).
- Resident of Anesthesiology, Resuscitation, and Pain Management. La Princesa University Hospital, Madrid (2008-2012).
- European Diploma in Anesthesiology and Critical Care awarded by the ESA (European Society of Anesthesiology). Part I and II. 2012.
- PhD program in Surgery and Medicine in Autonomous University, Madrid. Research
  work, Researcher Sufficiency "Descriptive observational study on the relationship
  between cerebral, central venous oxygen saturations and proBNP with perioperative
  complications in thoracic surgery". Grade. Outstanding.
- Rotation at Saint Thomas Hospital in London, in Intensive Care Unit and High Dependency Unit (July 2011).
- Rotation in La Paz Children's Hospital (April, May, June 2011).
- Rotation in Maternity at La Paz Hospital (Nov-Dec, 2009)
- FEA in Anesthesiology and Resuscitation at De la Princesa University Hospital (July-September 2012).
- FEA in Anesthesiology and Resuscitation at UH Rey Juan Carlos (Sept 2012- July 2015)
- FEA in Anesthesiology and Resuscitation at De la Princesa University Hospital (since July 2015).

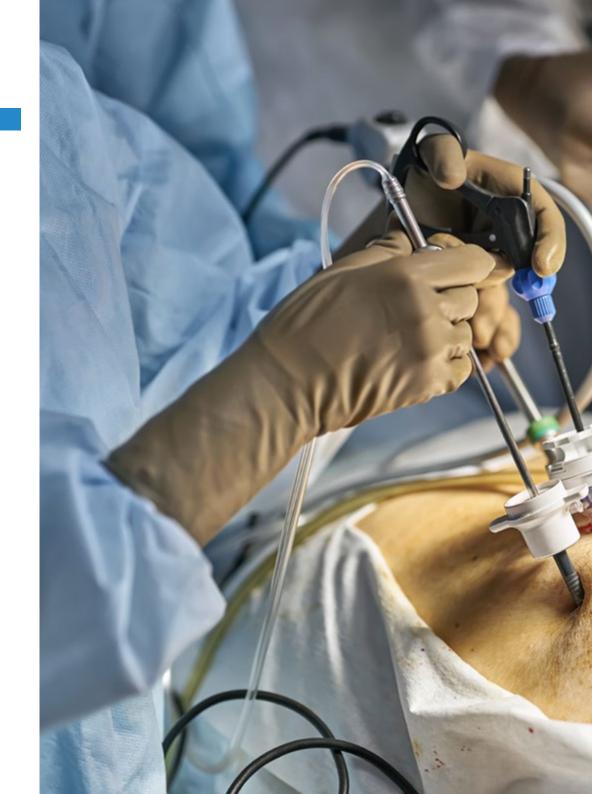


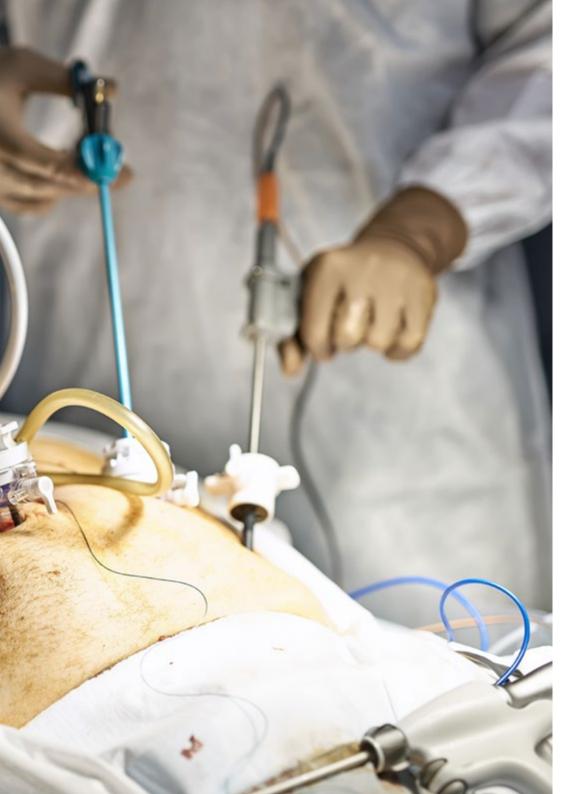


# tech 24 | Structure and Content

#### Module 1 Perioperative Management

- 1.1. ERAS Program in Bariatric Surgery
  - 1.1.1 Introduction
  - 1.1.2 ERAS Protocols in Bariatric Surgery
  - 1.1.3 Results of Implementation
  - 1.1.4 GERM Multidisciplinary Working Group Protocol Update
- 1.2. Multidisciplinary Management of the Bariatric Patient
  - 1.2.1. Pre Surgery
    - 1.2.1.1. Endocrinology and Nutrition
    - 1.2.1.2. Dietitian
    - 1.2.1.3. Psychiatry
    - 1.2.1.4. Psychology
    - 1.2.1.5. Pneumology
    - 1.2.1.6. Cardiology
    - 1.2.1.7. Digestive System
    - 1.2.1.8. Radiology
    - 1.2.1.9. Surgery
    - 1.2.1.10. Anaesthesiology
    - 1.2.1.11. Rehabilitation and Physiotherapy
  - 1.2.2. Hospital Admission
    - 1.2.2.1. Pre Surgery
    - 1.2.2.2. Intraoperative
    - 1.2.2.3. Post-Operative
  - 1.2.3. Monitoring
    - 1.2.3.1. Surgery
    - 1.2.3.2. Endocrinology and Nutrition
    - 1.2.3.3. Dietitian
    - 1.2.3.4. Psychiatry and Psychology
    - 1.2.3.5. Pneumology
    - 1.2.3.6. Primary Care





# Structure and Content | 25 tech

- 1.3. Patient Information, Objectives and Establishing Realistic Expectations
  - 1.3.1. What is Obesity?
  - 1.3.2. Affectations Arising from Obesity
  - 1.3.3. Obesity in the Current Day
  - 1.3.4. Can it be Modified?
  - 1.3.5. Benefits of Fighting It
  - 1.3.6. Post Surgery Results
    - 1.3.6.1. Complications
    - 1.3.6.2. Weight Regain
    - 1.3.6.3. Therapy Options
  - 1.3.7. Monitoring
- 1.4. Psychological Assessment
  - 1.4.1. Psychological Focus on an Obese Patient in Bariatric Surgery
  - 1.4.2. Emotional State and Quality of Life in Candidates of Bariatric Surgery
  - 1.4.3. Considerations in the Pre Surgery Psychological Assessment
  - 1.4.4. Aspects to be Addressed in the Initial Interviews
    - 1.4.4.1. History of the Start and Evolution of Their Obesity
    - 1.4.4.2. Explore Expectations, Motivation and Goals of the Patient
    - 1.4.4.3. Patient's Lifestyle
    - 1.4.4.4. Family Circle
    - 1.4.4.5. Patient Coping Strategies
  - 1.4.5 Recommended Assessment Instruments
    - 1.4.5.1. Depression/ Anxiety Scale
    - 1.4.5.2. Decision-Making and Self Control
    - 1.4.5.3. Quality of life
    - 1.4.5.4. Body image
    - 1.4.5.5. Eating Disorders
    - 1.4.5.6. Personality
  - 1.4.6. Considerations for Interpreting the Information Collected

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- 1.5. Perioperative Nutritional Management for Patients Put Forward for Bariatric Surgery
  - 1.5.1. Introduction
  - 1.5.2. Benefits of Pre-Surgery Weight Loss in Bariatric Surgery
  - 1.5.3. Preoperative Treatment Guidelines:
    - 1.5.3.1. Hypocalorie Diet and Very Low-Calorie Diet.
    - 1.5.3.2. Pharmacological Treatment.
    - 1.5.3.3. Other Treatments
  - 1.5.4. Postoperative Nutritional Treatment
    - 1.5.4.1. Dietary Progression in the First Weeks
    - 1.5.4.2. Micronutrient Supplementation Guidelines
    - 1.5.4.3. Special Situations
- 1.6. Thromboembolic Prophylaxis in Bariatric Surgery Prevention Measures for Surgical Site Infections
  - 1.6.1. Thromboembolic Prophylaxis
    - 1.6.1.1. Introduction
    - 1.6.1.2. Early Mobilization
    - 1.6.1.3. Mechanical Prophylaxis
    - 1.6.1.4. Pharmacological Prophylaxis
  - 1.6.2. Prevention of Surgical Site Infections
    - 1621 Introduction
    - 1.6.2.2. Preoperative Phase
      - 1.6.2.2.1. Smoking Control
      - 1.6.2.2.2. Shower and Shaving
      - 1.6.2.2.3. Skin Asepsis and Antisepsis
      - 1.6.2.2.4. Antibiotic Prophylaxis
    - 1.6.2.3. Intra and Perioperative Phase
      - 1.6.2.3.1. Door Opening Control
      - 1.6.2.3.2. Body Temperature and Blood Sugar Level Control
      - 1.6.2.3.3. Tissue Oxygenation
      - 1.6.2.3.4. Wound/Operation Site Irrigation
      - 1.6.2.3.5. Sutures with Antiseptics
    - 1.6.2.4. Post Operative Phase
      - 1.6.2.4.1. Skin Dressings
      - 1.6.2.4.2. Measurement Packages

- 1.7. Antiemetic Prophylaxis and Goal-Directed Fluid Therapy
  - 1.7.1. Antiemetic Prophylaxis
    - 1.7.1.1. Identification of Patients from Risk of Suffering Post Operative Nausea and Vomiting (PONV) in Bariatric Surgery.
    - 1.7.1.2. Detection and Intervention of Factors with Reduce the Basal Risk of PONV
    - 1.7.1.3. Antiemetic Drug Management
    - 1.7.1.4. Establishing a Prophylactic Algorithm to Establish Preventive Strategies in High-Risk Patients.
    - 1.7.1.5. Description of Treatment for PONV in Bariatric Surgery
  - 1.7.2. Goal-Guided Fluid Therapy
    - 1.7.2.1. Different Approaches to Fluid Administration in Obesity Surgery: Liberal vs. Restrictive Approach
      - 1.7.2.1.1. Liberal vs Restrictive Fluid Therapy
      - 1.7.2.1.2. Preoperative, Intraoperative and Postoperative Periods
      - 1.7.2.1.3. Surgical Factors which Affect the Administration of Fluids
    - 1.7.2.2. Concepts Goal-Guided Fluid Therapy
    - 1.7.2.3. Description of the Parameters that Guide the Administration of Fluids in Bariatric Surgery
      - 1.7.2.3.1. Volume Monitoring
      - 1.7.2.3.2. Functional Hemodynamic Variables
    - 1.7.2.4. Review of Current Monitoring Recommendations in Bariatric Surgery
- 1.8. Early Mobilization and Reintroduction or Oral Feeding
  - 1.8.1. Early Mobilization
    - 1.8.1.1. Inconveniences Period of Inactivity
    - 1.8.1.2. Benefits of Early Mobilization
    - 1.8.1.3. Early Mobilization Guidelines
  - 1.8.2. Reintroduction of Oral Feeding
    - 1.8.2.1. Benefits of Early Oral Feeding
    - 1.8.2.2. Importance of Protein Supplements
    - 1.8.2.3. Guidelines for Reintroduction of Oral Feeding

- Impact of Physical Training Programs on the Maintenance of Weight Loss Before and After Bariatric Surgery
  - 1.9.1. Impact of Physical Training Programs on the Physical Aptitude of Obese People
  - 1.9.2. Physical Activity in the Preoperative and Postoperative Periods of Bariatric Surgery
    - 1.9.2.1. Preoperative Physical Activity
    - 1.9.2.2. Postoperative Physical Activity
  - 1.9.3. Advice Before Starting a Physical Activity Program After Bariatric Surgery
  - 1.9.4. Planning on Physical Activity after Bariatric Surgery
    - 1.9.4.1. Physical Activity During the 1st Month
    - 1.9.4.2. Physical Activity Between the 2nd and 6th Month
    - 1.9.4.3. Physical Activity After the 6th Month
  - 1.9.5. Types of Routines and Exercises
- 1.10. Optimization of Comorbidities Prior to Bariatric Surgery
  - 1.10.1. Concept of Multimodal Reahbilitation in Bariatric Surgery
  - 1.10.2. Preanesthetic Consultation in Bariatric Surgery
  - 1.10.3. Study and Detection of the Risk Factors of Corony Heart Disease
  - 1.10.4. Screening for Sleep Apnea-Hypopnea Syndrome
  - 1.10.5. Indications for Preoperative Spirometry in Obese Patients.
  - 1.10.6. Description of the Recommended Laboratory Studies on Proposed Patients for Bariatric Surgery
  - 1.10.7. Nutritional Optimization in the Preoperative Period
  - 1.10.8. Respiratory Physiotherapy
  - 1.10.9. Physical Rehabilitation of the Bariatric Patient





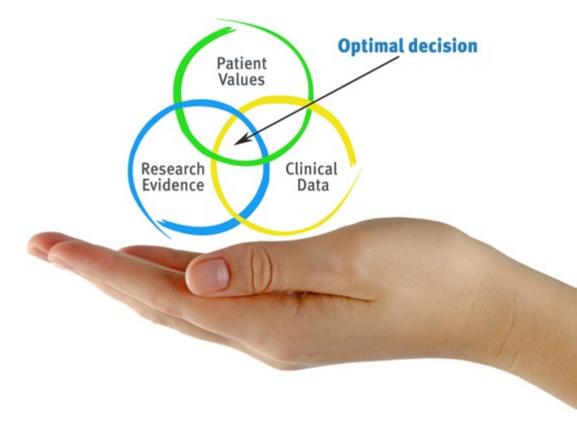


# tech 30 | Methodology

#### At TECH we use the Case Method

In a given situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an adundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in 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.



## Methodology | 33 tech

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning will allow you to learn with less effort and better performance, involving you more in your 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**

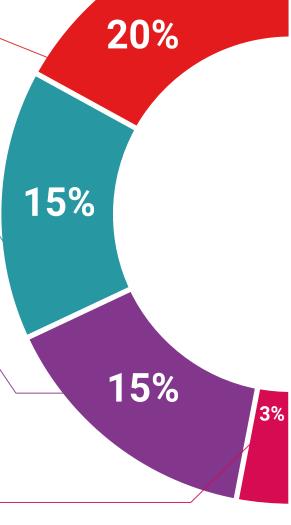
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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 training system for presenting multimedia content 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.

# 20% 17% 7%

#### **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.



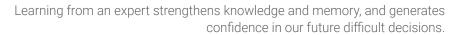
#### **Testing & Retesting**

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.





#### **Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.







# tech 38 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Perioperative**Management 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 Certificate in Perioperative Management for Obesity

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



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

#### Postgraduate Certificate in Perioperative Management for Obesity

This is a program of 180 hours of duration equivalent to 6 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 Certificate Perioperative Management for Obesity

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

