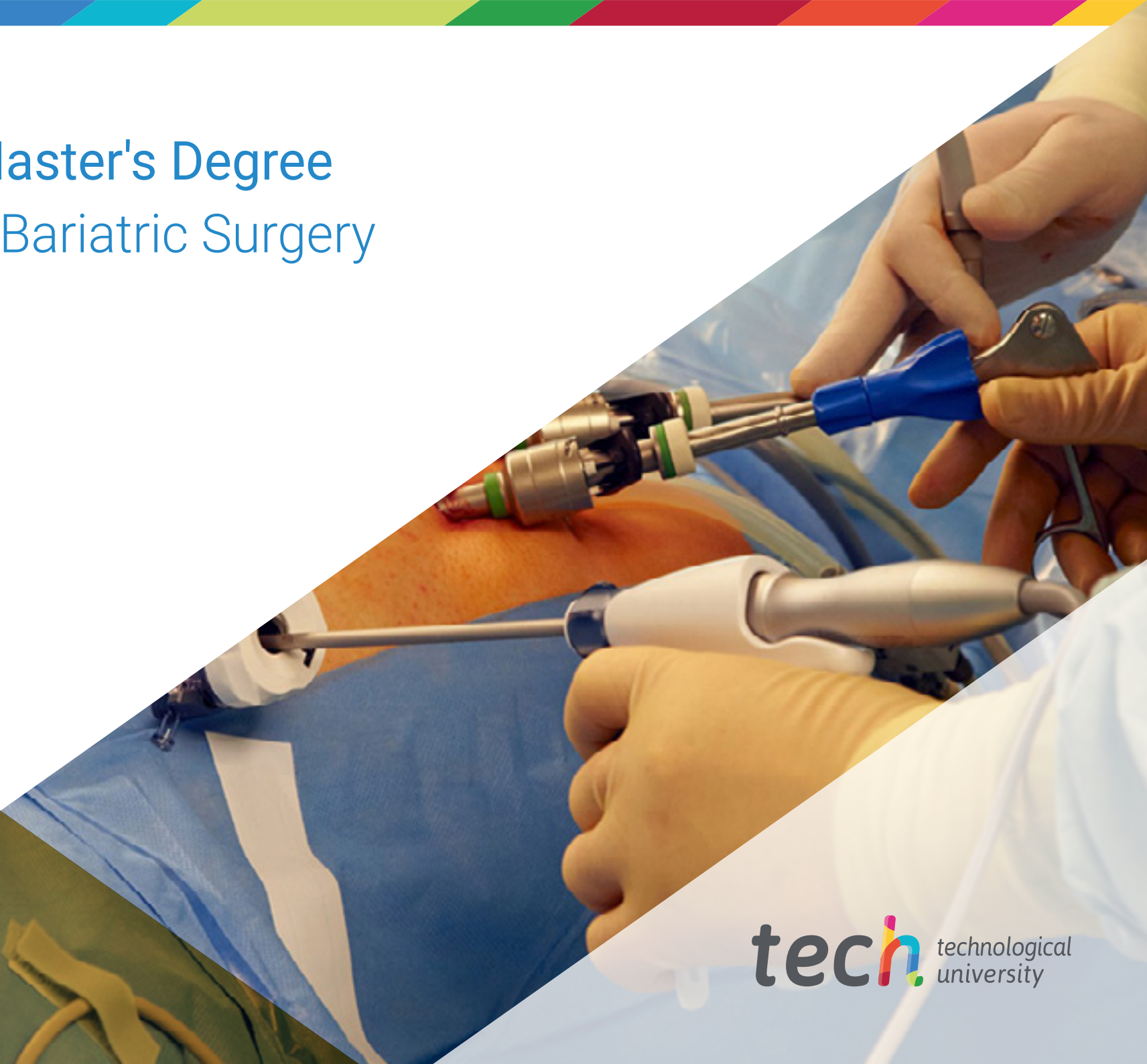


Advanced Master's Degree Obesity and Bariatric Surgery





Advanced Master's Degree Obesity and Bariatric Surgery

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/medicine/advanced-master-degree/advanced-master-degree-obesity-bariatric-surgery

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 16

04

Course Management

p. 22

05

Structure and Content

p. 30

06

Methodology

p. 42

07

Certificate

p. 50

01

Introduction

Obesity is a serious health problem worldwide. In fact, the World Health Organization (WHO) estimates that around 2.8 million people die each year as a result of obesity. Although prevention is fundamental to avoid overweight, in certain cases it is essential to apply the most advanced surgical techniques. This program offers the most up-to-date and complete qualification on Obesity and Bariatric Surgery so that students can apply all these techniques in their daily work.





“

We offer you a quality program that will enable you to expand your skills in the healthcare field. A high-level program for professionals seeking to achieve career success"

Obesity has become one of the main epidemics of the 21st century, worldwide, with an estimated 650 million people affected. The increase in its incidence, the comorbidities that accompany it and that lead to a significant increase in mortality, especially cardiovascular and cancer, the various medical and surgical treatments available, together with the exponential increase in health expenditure that obesity represents, make it a permanent focus of attention.

Prevention in this field is essential, and a multidisciplinary approach aimed at implementing changes in lifestyle, especially physical activity and dietary patterns, should be initiated as early as possible.

This program aims to provide the medical professional with the necessary qualification to implement in a real way a high-level bariatric praxis, considering all its aspects: from the most advanced surgical techniques, to the creation and organization of multidisciplinary teams and their global management. In this way, the student will be able to make a qualitative leap from occasional bariatric practice to the super-specialized bariatric unit.

Throughout this program, the student will go through all the current approaches in the different challenges that their profession poses. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level. This challenge is one of TECH's social commitments: to help highly qualified professionals to education and develop their personal, social and work skills during the course of the program.

This **Advanced Master's Degree in Obesity and Bariatric Surgery** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The latest technology in online teaching software
- ♦ A 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 remote training
- ♦ Continuous updating and retraining systems
- ♦ Autonomous 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 program has ended



A high-level scientific program, supported by advanced technological development and the teaching experience of the best professionals"

“

An educational program created for professionals who aspire for excellence, and that will enable you to acquire new skills and strategies easily and effectively”

Our teaching staff is made up of working professionals. In this way TECH ensures that it delivers the educational update objective it is aiming for. A multidisciplinary team of professionals prepared and experienced in different environments, who will develop theoretical knowledge efficiently, but, above all, will put at the service of the program the practical knowledge from their own experience.

This mastery of the subject matter is complemented by the effectiveness of the methodological design of this Advanced Master's Degree. Developed by a multidisciplinary team of E-Learning experts, it integrates the latest advances in educational technology. In this way, the students will be able to study with a set of comfortable and versatile multimedia tools that will give them the operability they need in their training.

The design of this program is based on Problem-Based Learning, an approach that views learning as a highly practical process. To achieve this remotely, TECH will use telepractice. With the help of an innovative interactive video system, and learning from an expert, the student will be able to acquire the knowledge as if you were actually dealing with the facing you are learning about. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

With this program, you will learn to master the most advanced procedures and techniques to improve the health of your patients.

We have the best teaching methodology and a multitude of simulated cases that will help you prepare for real situations.



02 Objectives

TECH's objective is to specialize highly qualified professionals for work experience. 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 professionals reach a much higher level of expertise and control. A goal that the student will be able to take for granted, with a high-intensity and precise qualification.





“

If your goal is to improve in your profession, to acquire a qualification that will enable you to compete among the best, then look no further: Welcome to TECH Global University”



General Objectives

- Update the physician's knowledge on new trends in human nutrition in both health and pathological situations through evidence-based medicine
- Promote work strategies based on the practical knowledge of the new trends in nutrition and its application to child and adult pathologies, where nutrition plays a fundamental role in treatment
- Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific specialization. Encourage professional stimulation through continuous learning and research
- 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 economic management
- Describe the medical legal aspects of bariatric surgery



We are the largest online university in the world, and we want to help you improve your future"





Specific Objectives

Module 1. General Aspects of Obesity

- ♦ 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

Module 2. Physiology of Appetite and Weight Control Pathophysiology

- ♦ Expand understanding of the basic principles of energy balance
- ♦ Acquire skills in the calculation of the energy balance
- ♦ Analyze the different methods for assessing nutritional status
- ♦ Review new pathways, hormonal, metabolic, etc. that regulate neuroendocrine function, energy homeostasis, and metabolism in humans
- ♦ Analyze subcutaneous adipose tissue and the role of dysfunctional adipose tissue in the development of obesity
- ♦ Explain the role of the intestinal microbiota and its implications in diseases
- ♦ Review the basics of a balanced diet

Module 3. Etiopathogenesis of Obesity

- ♦ Know in depth the genetic factors of monogenic and polygenic obesity
- ♦ Acquire knowledge about how epigenetics may influence the development of obesity
- ♦ List the different causes of secondary obesity in relation to endocrinopathies and drugs
- ♦ Analyze advances in nutritional genomics, both in nutrigenetics and nutrigenomics
- ♦ Establish the relationship between environmental factors and the development of obesity
- ♦ Review and learn about the various endocrine disruptors and their role as obesogenic agents
- ♦ Explain the connection between obesity and level of economic status
- ♦ Study how circadian rhythm alterations influence the expression of enzymes and hormones involved in metabolism
- ♦ Review the risk of loss of muscle mass and subsequent development of sarcopenia in relation to obesity

Module 4. History Definition. Diagnosis and Classification. Epidemiology

- ♦ Gain an in-depth understanding of obesity as a clinical condition and its historical evolution
- ♦ Interpretation and integration of anthropometric data
- ♦ Know and be able to interpret the impact-based obesity classifications (ABCD) and the Edmonton system
- ♦ Know the epidemiology of obesity in childhood, adulthood and its complications
- ♦ Identify that this is more of a clinical syndrome that requires an exhaustive phenotypic characterization
- ♦ Correctly evaluate a patient with Obesity, throughout the different periods of life
- ♦ Interpreting the existence of the so-called metabolically healthy obese

Module 5. Comorbidities of Obesity

- ♦ Become familiar with the concept of comorbidity associated with obesity
- ♦ Deepen your understanding of the pathophysiology of these comorbidities
- ♦ Study the different endocrine-metabolic and cardiovascular comorbidities
- ♦ Identify the close relationship between type 2 diabetes mellitus and obesity has led to the emergence of the term "diabesity", this module identifies this relationship and how obesity, mainly visceral, is a cause of insulin resistance, such as type 2 diabetes and the risk of suffering from it, increases in direct proportion to the magnitude of body overweight
- ♦ Identify the pathophysiological mechanisms linking hypertension and obesity
- ♦ Recognize the relationship between lipid disorders and obesity, especially atherogenic dyslipidemia
- ♦ Specialize in the non-metabolic and non-cardiovascular comorbidities associated with obesity, especially respiratory, digestive comorbidities etc.
- ♦ Review the basic concepts on the available scientific evidence of these pathologies and especially the relationship between obesity and cancer
- ♦ Integrate the most current knowledge on COVID-19 infection in obese patients

Module 6. Prevention of Obesity and Its Comorbidities

- ♦ Identify the high prevalence of overweight and obesity in childhood and its importance because of the association with other diseases, such as hypertension and diabetes
- ♦ Establish recommendations for a healthier lifestyle to prevent childhood overweight and obesity
- ♦ Analyze peculiarities of obesity in women
- ♦ Review the costs of obesity in different countries and the strategies for obesity prevention in health systems
- ♦ Insist on the interaction between obesity and type 2 diabetes mellitus
- ♦ Comprehensive knowledge of the therapeutic approach, insisting on the importance of a multidisciplinary approach

Module 7. Dietary Treatment of Obesity

- ◆ Conduct a review of the evidence regarding carbohydrate and protein intake in the prevention and treatment of obesity
- ◆ Deepen the understanding of the basis of the relationship between dietary fat and body weight regulation
- ◆ Study eating patterns and the balanced hypocaloric diet as a dietary treatment for obesity
- ◆ Acquire knowledge about exchange diets and how to catalog the different generic foods
- ◆ Review the Mediterranean diet as a model for the prevention and treatment of obesity
- ◆ Review and understand the meaning of light foods and functional foods
- ◆ Become familiar with the history and current status of miracle diets and their impact on individuals and society as a whole
- ◆ Explain the methodology of a diet to maintain the lost weight
- ◆ Learning about very low-calorie diets
- ◆ Acquire skills in the use of dietary treatment as therapy for comorbidities

Module 8. Physical Activity and Obesity

- ◆ In-depth knowledge of the concepts related to physical activity
- ◆ Perform a functional assessment based on scientific evidence
- ◆ Establish a physical activity program based on assessment
- ◆ Understand the different types of physical activity programs appropriate for age and physical condition
- ◆ Identify exercises with low risk of injury for obese patients
- ◆ Understand physical activity as a habit to prevent obesity
- ◆ Address physiotherapy in the comorbidities of obesity and its importance in the treatment of these comorbidities
- ◆ Deepen the work of physiotherapy in surgical approaches in obesity (pre- and post-surgery) (Pre- and post-surgery)

Module 9. Psychological and Psychiatric Aspects of Obesity

- ◆ Obtain an overview of the contributions from the psychological area aimed at increasing the chances of success in multidisciplinary intervention in overweight and obesity
- ◆ Make a brief historical review of the different social and cultural considerations of the phenomenon of Obesity from prehistoric times to the present day
- ◆ Recognize the main comorbid psychiatric disorders associated with obesity and psychopathology related to eating disorders
- ◆ In-depth knowledge and management of binge eating disorder and its relationship with obesity and overweight
- ◆ Learn techniques to encourage a change in the patients towards living a healthier lifestyle
- ◆ Expand knowledge of psychological examinations before and after bariatric surgery
- ◆ Present the psychotherapeutic approach from the cognitive-behavioral therapy approach
- ◆ that has proven to be the most effective treatment to address obesity in both children and adults
- ◆ Stress the importance of early detection of the psychological and educational variables that contribute to the development of eating disorders and obesity in order to carry out preventive activities

Module 10. Pharmacological Treatment of Obesity

- ◆ Identify the pharmacological arsenal currently available to treat obesity
- ◆ Establish the indications for anti-obesity drugs in each patient
- ◆ Analyze how its effect is controlled and the results we can expect
- ◆ Identify other drugs which are already commercialized in other countries such as the USA
- ◆ Present those drugs that produce weight loss, without being their main reason for use
- ◆ Review miracle drugs that have been used in the treatment of obesity
- ◆ Gain in-depth knowledge of the new lines of research in Precision Medicine
- ◆ Establish the pharmacokinetic variations caused in obese patients by excess body fat and those that appear after bariatric surgery

Module 11. Surgical Treatment of Obesity

- ♦ Correctly address the indications and contraindications of bariatric surgery
- ♦ Establish the preoperative protocol, with surgical risk stratification
- ♦ Recognize all the techniques of bariatric surgery
- ♦ Identify the appropriate technique for each patient
- ♦ In-depth knowledge of the endoscopic therapies currently in use, their indications and clinical management
- ♦ Knowing how to indicate metabolic surgery
- ♦ Postoperative care of the patient
- ♦ Identify the possible emergencies after bariatric surgery
- ♦ Familiarization in the follow-up of pregnancy after bariatric surgery

Module 12. Endoscopic and Percutaneous Treatments in Obesity

- ♦ Learn the characteristics of the multidisciplinary obesity team as a key element focused on the needs of the bariatric patient
- ♦ Define the key elements of the multidisciplinary obesity team, introducing an innovative and essential element such as the call center/patient service
- ♦ Recognize the leadership role of the bariatric surgeon as a key element in the value chain
- ♦ Recognize the protocols of each of the multidisciplinary obesity team specialists

Module 13. Endoscopic Treatment of Obesity and the Overweight

- ♦ Know the endoscopic therapies for obesity currently in use, their indications, the "how it is done" and their clinical management

Module 14. Perioperative Management

- ♦ Recognize all the techniques of bariatric surgery
- ♦ Know how to perform some of the techniques of bariatric intervention
- ♦ Recognize the appropriate technique for each patient

Module 15. Bariatric Surgery Patient Emergencies

- ♦ Develop an advanced protocol for the multidisciplinary obesity team
- ♦ Recognize the real possibilities of the environment to adapt the multidisciplinary obesity team protocol
- ♦ Design a contingency plan

Module 16. Revisional Bariatric Surgery (RBS)

- ♦ Know the indications and revisional surgery techniques for each of the primary techniques

Module 17. Postoperative Follow-Up and Supplementation

- ♦ Recognize all aspects of type 2 diabetes mellitus and its pathophysiology
- ♦ Learn the guidelines for evaluation and preoperative study of the T2DM patient
- ♦ Knowing how to indicate metabolic surgery
- ♦ Point out the best surgical technique
- ♦ Define the peculiarities of each technique
- ♦ Pre and postoperative management of the patient operated for T2DM

Module 18. Basics of Metabolic Surgery

- ♦ Explain the need for training and accreditation in bariatric surgery
- ♦ Recognize the difference between accreditation and certification
- ♦ Learn the steps of bariatric surgery specialization
- ♦ Learn how to develop one's own protocol and adjust it to the clinical pathways in place in one's environment
- ♦ Describe the key data that the surgeon must record in their activity, for a future scientific publication
- ♦ Describe the BAROS system
- ♦ Analyze the key elements of bariatric scientific publications



Module 19. Transplantation, Abdominal Wall and Special Situations in Bariatric Surgery

- ◆ Establish the basic structure of a multidisciplinary obesity team, its human and material resources
- ◆ Define a detailed business plan, so that the project pursues excellence in care and at the same time is sustainable over time and profitable
- ◆ Establish a marketing plan appropriate to the patients-clients and their environment, within this business plan
- ◆ Know how to legally structure the collaboration with other professionals
- ◆ Design an economic contingency plan

Module 20. Innovation, Quality of Life, Training and Clinical Management in Bariatric Surgery

- ◆ Design a legal security framework for patient data
- ◆ Design a legal security framework for the clinical practice of multidisciplinary obesity team professionals

03 Skills

Once all content has been studied and the objectives of the Advanced Master's Degree in Obesity and Bariatric Surgery have been achieved, the professional will have superior skills and performance in this field. A comprehensive approach, in a top-level qualification, that makes all the difference.





“

Achieving excellence in any profession requires effort and perseverance. But, above all, the support of professionals, who will give you the boost you need, with the necessary means and assistance. At TECH, we offer you everything you need”



General Skills

- ◆ Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific training
- ◆ Encourage professional stimulation through continuous education and research
- ◆ Implement the most important elements of the multidisciplinary obesity team
- ◆ Create and improve the multidisciplinary obesity team
- ◆ Manage relationships between associated multidisciplinary departments
- ◆ Recognise the appropriate intervention techniques for each case.
- ◆ Correctly deal with the existing intervention techniques in bariatric surgery
- ◆ Organize all aspects of a bariatric surgery unit with real efficacy
- ◆ Increase the number of interventions performed



Our objective is very simple: to offer you a quality specialization with the best teaching system available today, so that you can achieve excellence in your profession"



Specific Skills

- ◆ Analyze the different methods for assessing nutritional status
- ◆ Explain the role of the intestinal microbiota and its implications in diseases
- ◆ List the different causes of secondary obesity in relation to endocrinopathies and drugs
- ◆ Analyze advances in nutritional genomics, both in nutrigenetics and nutrigenomics
- ◆ Gain an in-depth understanding of obesity as a clinical condition and its historical evolution
- ◆ Correctly evaluate a patient with Obesity, throughout the different periods of life
- ◆ Identify the pathophysiological mechanisms linking hypertension and obesity
- ◆ Recognize the relationship between lipid disorders and obesity, especially atherogenic dyslipidemia
- ◆ Analyze peculiarities of obesity in women
- ◆ Insist on the interaction between obesity and type 2 diabetes mellitus
- ◆ Conduct a review of the evidence regarding carbohydrate and protein intake in the prevention and treatment of obesity
- ◆ Explain the methodology of a diet to maintain the lost weight
- ◆ Perform a functional assessment based on scientific evidence
- ◆ Identify exercises with low risk of injury for obese patients
- ◆ Obtain an overview of the contributions from the psychological area aimed at increasing the chances of success in multidisciplinary intervention in overweight and obesity

- ♦ Recognize the main comorbid psychiatric disorders associated with obesity and psychopathology related to eating disorders
 - ♦ Analyze how its effect is controlled and the results we can expect
 - ♦ Identify the appropriate technique for each patient
 - ♦ Identify the possible emergencies after bariatric surgery
 - ♦ Confidently and safely manage the indications of endoscopic and surgical treatments.
 - ♦ Know how to prepare a patient for bariatric surgery as well as how to select them with the surgical technique criteria
 - ♦ Manage the protocols which allow professionals in the multidisciplinary obesity team to develop their practice with security, making the correct decisions in accordance with the best evidence and medical praxis
 - ♦ Know how to use endoscopic techniques
 - ♦ Know the indications and their clinical management with agility and confidence
 - ♦ Perform the implantation and removal of endoscopic elements safely (endoscopic physicians, gastroenterologists or surgeons)
 - ♦ Select the best bariatric technique for each patient
 - ♦ Elaborate a realistic, high-quality protocol focused on the patient's needs and the possibilities in their surroundings
- ♦ Early diagnosis
 - ♦ Safely and effectively manage complications arising from this surgery
 - ♦ Confidently evaluate a bariatric surgery patient "in failure"
 - ♦ Determine the cause of the failure and outline the best plan, surgical or otherwise, for its treatment
 - ♦ Confidently evaluate a Type 2 Diabetic patient
 - ♦ Determine if they have surgery indications
 - ♦ Define the patient's expectation of results and choose the best technique for the patient
 - ♦ Determine which elements are key (and which are not) for the transmission of knowledge in bariatric activity
 - ♦ Start your scientific activity with a lower volume of cases than other teams who do not have this knowledge
 - ♦ Design a multidisciplinary obesity team with a viable and sustainable business plan structure
 - ♦ Specify in the business plan, the key elements to ensure it is cost-effective
 - ♦ Carry out practice with legal security
 - ♦ Be able to cope before, during and after any legal contingency

04

Course Management

The program's faculty includes leading experts in Obesity and Bariatric Surgery, who contribute their vast work experience to this program. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.



“

We have an excellent team of professionals who have come together to teach you the latest advances in Obesity and Bariatric Surgery”

International Guest Director

Considered as a reference in the treatment of **Metabolic Diseases** and **Obesity**, Dr. Samuel Szomstein is a prestigious **surgeon** who accumulates an extensive professional background of more than 25 years. In this way, he has been part of renowned institutions such as the Cleveland Clinic in the United States, where he has significantly optimized the quality of life of many patients with chronic disorders such as **Diabetes**.

Among his main achievements, his role as **Director of the Institute of Advanced Laparoscopic and Bariatric Surgery** stands out. Under his leadership, this institution has been a pioneer in the use of **minimally invasive techniques**, which has improved the patient experience by promoting a faster recovery. At the same time, these methods have considerably reduced the risk of additional complications such as infection, postoperative anemia and deep vein thrombosis. In this sense, it has contributed to the training of **70 professionals**, who have subsequently carried out more than **6,000 bariatric interventions** to treat excess weight.

On the other hand, he has balanced this work with his facet as a **Clinical Researcher**. In fact, he has published 25 chapters of specialized books and 280 scientific articles on subjects such as **new technologies** to enhance the safety of surgical procedures. In turn, his meticulous studies on the impact of Bariatric Surgery have allowed him to develop advanced strategies to optimize the **mental and physical well-being** of individuals after their operations.

In his commitment to healthcare excellence, he has participated in various international conferences to share the latest therapeutic advances in matters such as the most innovative **laparoscopic techniques** to reduce pain or the use of **robotics** in order to visualize in detail the anatomy of the users. This has made it possible for specialists to acquire a **multidisciplinary approach** to increase the effectiveness of their clinical results.



Dr. Szomstein, Samuel

- Director of the Institute for Metabolic and Bariatric Surgery at Cleveland Clinic, United States
- President of the International Committee of the American Society for Metabolic and Bariatric Surgery
- General Surgery Residency at Long Island Jewish Medical Center, United States
- Residency in General Surgery at New York Hospital Medical Center of Queens, United States of America
- Medical Degree from the Central University of Venezuela
- Member of: Committee of the International Federation for the Surgery of Obesity and Metabolic Disorders, Bariatric Surgical Practice and Patient Care, Iberoamerican Bariatric and Metabolic Surgery, Editorial Board of Bariatric Times

“

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

Management



Dr. Ruiz-Tovar Polo, Jaime

- ♦ Bariatric Surgeon in the Centre for Excellence for the Study and Treatment of Obesity. Valladolid. Bariatric Surgery Unit
- ♦ Faculty Specialist in the Bariatric Surgery Unit. Rey Juan Carlos University Hospital, Madrid
- ♦ Coordinator of the Bariatric Surgery Unit. Elche General University Hospital
- ♦ Specialist in General and Digestive Surgery. Henares University Hospital Madrid
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Degree in Medicine from the Autonomous University 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



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
- ◆ 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" in the Cancer Institute Hospital (Tokyo) with Professor Takeshi Sano
- ◆ 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
- ◆ Degree in Medicine from the Complutense University Madrid
- ◆ Master's Degree in Advanced Laparoscopic Surgery. University of Alcalá
- ◆ Master's Degree in Clinical Management, Medical, and Welfare Management. University of CEU
- ◆ Medical Specialist in the Department of General and Digestive System Surgery at the General Hospital of Villalba (Madrid). Esophagogastric and Bariatric Surgery Unit
- ◆ Medical Specialist in the Department of General and Digestive System Surgery at the General University Hospital of Castellón. Esophagogastric, Hepatobiliopancreatic and Thoracic Surgery Unit



Dr. Puigdevall Gallego, Víctor

- ♦ Doctor of Medicine and Surgery
- ♦ Specialist in Endocrinology and Nutrition
- ♦ Soria Hospital Complex
- ♦ Associate Professor in Valladolid University

Professors

Dr. Laudo Pardos, Consuelo

- ♦ Doctor of Medicine and Surgery
- ♦ Specialist in Family and Community Medicine
- ♦ Full-time Associate Professor and Assistant Professor at the University of Valladolid

Dr. Serrano Valles, Cristina

- ♦ Degree in Medicine and Surgery
- ♦ Specialist in Endocrinology and Nutrition, University Clinical Hospital of Valladolid

Dr. León Tellez, Marta

- ♦ Degree in Medicine and Surgery
- ♦ Specialist in Internal Medicine, Soria Hospital Complex

Dr. Ortega Sanchez, Higinio

- ♦ Degree in Medicine and Surgery
- ♦ Specialist in Endocrinology and Nutrition, Hospital Marqués de Valdecilla University Clinic (Santander)

Dr. Fernández Fernández, Luis

- ♦ Doctor of Medicine and Surgery
- ♦ Specialist in General Surgery in Soria Hospital Complex

Dr. García Lázaro, Sandra

- ♦ Graduate in Physiotherapy
- ♦ Soria Hospital Complex
- ♦ Associate Professor of Physiotherapy in the Faculty of Physiotherapy of Soria

Ms. Cepero Andrés, Ana Belén

- ♦ Degree in Psychology. Specialist in Clinical Psychology
- ♦ Soria Hospital Complex
- ♦ Associate Professor at the University of Valladolid (2009-2010) and at the Complutense University of Madrid

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 at IntraObes, Denia

Ms. Aspas Montal, Sonia

- ♦ Degree in Psychology
- ♦ Master's Degree in Health Psychology
- ♦ Responsible for the Psychology Department in the IntraObes team

Dr. Carda Abella, Pedro

- ♦ Degree and PhD in Medicine and Surgery
- ♦ Specialist in General and Digestive System Surgery
- ♦ Bariatric and metabolic surgeon. SECO Expert
- ♦ Department Head, Ramón y Cajal University Hospital of Madrid
- ♦ Head of the Surgery Department at HLA University Hospital, Moncloa, (Madrid)
- ♦ Surgery Professor. Alcalá de Henares University

Dr. Pacheco Becerra, Javier Gerardo

- ♦ Degree and PhD in Medicine and Surgery
- ♦ Specialist in General and Digestive System Surgery
- ♦ Bariatric and metabolic surgeon. SECO Diploma
- ♦ Surgery Professor. Central University of Caracas
- ♦ IntraObes Team Surgeon

Dr. Resa Bienzobas, Jose Joaquín

- ♦ Degree and PhD in Medicine and Surgery
- ♦ Specialist in General and Digestive System Surgery
- ♦ Bariatric and metabolic surgeon. SECO Expert.
- ♦ Head of the Bariatric Surgery Department of the HLA-Montpellier Hospital (Zaragoza-Spain)

Dr. Camuñez Alonso, Fernando

- ♦ Degree and PhD in Medicine
- ♦ Radiology Specialist
- ♦ Interventional Radiology at HLA University Hospital, Moncloa, (Madrid)

Dr. Torres Alemán, Ana

- ◆ Degree and PhD in Medicine and Surgery
- ◆ Specialist in General and Digestive System Surgery
- ◆ Bariatric and metabolic surgeon. SECO Diploma
- ◆ Member of Bariatric Surgery Team at HLA Moncloa University Hospital

Dr. Valía Vera, Juan Carlos

- ◆ Degree and PhD in Medicine and Surgery
- ◆ Specialist in Anesthesiology and Resuscitation
- ◆ Head of the Anesthesiology Department of the IMED Hospital, Valencia

Dr. Serrano Jiménez, Andrés

- ◆ Degree and PhD in Medicine and Surgery
- ◆ Specialist in Gastroenterology and Endoscopy
- ◆ Head of Endoscopy at HLA La Vega University Hospital (Murcia, Spain)

Dr. Hernández Alonso, Enrique

- ◆ Degree and PhD in Medicine
- ◆ Specialist in Endocrinology
- ◆ Endocrinologist at HLA La Vega University Hospital (Murcia, Spain)

Mr. Escudero Pallardó, Lluch

- ◆ Degree in Nutrition
- ◆ IntraObes Team Nutrition Manager





Mr. Escartí Usó, José

- ◆ Degree in Computer Science
- ◆ SEO-SEM expert in the bariatric field
- ◆ Expert in Bariatric Marketing

Mr. Fornés Vivas, Carlos

- ◆ Lawyer specializing in Health Law
- ◆ President of the Health Law Association of the Valencian Community

Ms. Garrote Gimeno, Ana Celeste

- ◆ Degree in Psychology
- ◆ Specialist in Sports Psychology

Ms. Casas Moya, Rosana

- ◆ Degree in Nursing
- ◆ Bariatric Surgery Instrumentalist Nurse

Dr. Ruiz Tomás, Alberto

- ◆ Doctor of Law. Lawyer
- ◆ Economist
- ◆ Former Prosecutor and Magistrate-Judge

05

Structure and Content

The contents of this specialisation have been developed by the different teachers of this 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. The content of this program enables you to learn all aspects of the different disciplines involved in this field. A complete and well-structured program that will take you to the highest standards of quality and success.



“

Through a very well compartmentalized approach, you will be able to access the most advanced knowledge of the moment to safely develop your daily work”

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 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. Evaluation of Patient Risk
- 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. Colelitis, Colectitis
 - 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 Hypocaloric Diets
 - 1.4.2. Medical Treatment
 - 1.4.2.1. Types of Drugs
 - 1.4.2.2. Drugs Which Affect Appetite and Fullness
 - 1.4.2.3. Drugs Which 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. Pre-Operative Study
 - 1.7.1. Basic Preoperative Process
 - 1.7.2. Upper Digestive Tract Study: 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 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. Pre-Bariatric Surgery Glycemic Control
- 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 Techniques vs. Definitive Techniques: to Whom and Which
 - 1.10.2. Over the Age of 60
 - 1.10.2.1. How to Differentiate between Biological Age and Theoretical Age?
 - 1.10.2.2. Specific Techniques in 60-Year-Olds
 - 1.10.3. BMI 30-35
 - 1.10.3.1. Indication for Surgery
 - 1.10.3.2. Surgical Techniques.
 - 1.10.4. Other Borderline Patients
 - 1.10.4.1. IMC 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 the Age of 70
 - 1.10.4.5. HIV Patients
 - 1.10.4.6. Liver Cirrhosis Patients

Module 2. Physiology of Appetite and Weight Control Pathophysiology

- 2.1. Energy Balance
- 2.2. Adequate Energy Intake: Estimation of Energy Expenditure
 - 2.2.1. Basal Metabolism
 - 2.2.2. Voluntary and Involuntary Physical Activity
 - 2.2.3. Total Energy Expenditure
- 2.3. Nutritional Assessment
 - 2.3.1. Dietary Surveys
- 2.4. Gastrointestinal Hormones in the Regulation of Body Weight
 - 2.4.1. Ghrelin
 - 2.4.2. Obestatin
 - 2.4.3. Cholecystokinin
 - 2.4.4. GLP-1 and Others

- 2.5. Leptin in Body Weight Regulation
- 2.6. Metabolic Signals and Weight Control
 - 2.6.1. Blood Sugar Levels
 - 2.6.2. Fats
- 2.7. Hypothalamic Control of Food Intake
- 2.8. Adipose Tissue as an Endocrine Organ
 - 2.8.1. Adipogenesis
 - 2.8.2. Fat Cell Function in Obesity
- 2.9. Gut Microbiota and its Influence on the Development of Obesity
- 2.10. Healthy Nutrition

Module 3. Etiopathogenesis of Obesity

- 3.1. Genetic Factors of Obesity
 - 3.1.1. Monogenic Obesity
 - 3.1.2. Polygenic Obesity
- 3.2. Epigenetics of Obesity
- 3.3. Secondary Obesity
 - 3.3.1. Endocrinopathy
 - 3.3.2. Drugs:
- 3.4. Nutritional Genomics
 - 3.4.1. Nutrigenetics
 - 3.4.2. Nutrigenomics
- 3.5. Environmental Factors and Obesity (I): Changes in Eating Pattern
- 3.6. Environmental Factors and Obesity (II): Changes in Physical Activity
- 3.7. Endocrine Disruptors: Obesogens
- 3.8. Socioeconomic Status and Obesity. Environment and Obesity
- 3.9. Chronodisruption and Obesity
- 3.10. Sarcopenic Obesity



Module 4. History Definition. Diagnosis and Classification. Epidemiology

- 4.1. Definition. Obesity through the Ages
- 4.2. Diagnosis
 - 4.2.1. Body Mass Index
 - 4.2.2. Waist Circumference
 - 4.2.3. Body Composition
- 4.3. Classification Based on Impact of Disease
 - 4.3.1. ABCD
 - 4.3.2. Edmonton Obesity Staging System
- 4.4. Epidemiology of Childhood Obesity
- 4.5. Epidemiology of Adult Obesity
- 4.6. Phenotypic Characterization of Obese Patients
 - 4.6.1. Body composition
 - 4.6.2. Energy Expenditure
 - 4.6.3. Associated Comorbidities
 - 4.6.4. Compulsive Score
- 4.7. Epidemiology of the Complications
- 4.8. Obesity in Different Stages of Life
- 4.9. Metabolically Healthy Obese People
- 4.10. New Technologies in Obesity Management

Module 5. Comorbidities of Obesity

- 5.1. Diabetes Mellitus Type 2 and Obesity
 - 5.1.1. Diabesity
 - 5.1.2. Pathophysiology
 - 5.1.3. Prediabetes
- 5.2. Arterial Hypertension and Obesity
 - 5.2.1. Mechanisms
- 5.3. Dyslipidemia and Obesity
 - 5.3.1. Atherogenic Dyslipidemia
 - 5.3.2. Pathogenesis

- 5.4. Metabolic Syndrome. Heart Disease. Peripheral Vascular Disease and Peripheral Venous Insufficiency
 - 5.4.1. Diagnostic Criteria in Metabolic Syndrome
- 5.5. Obesity and Cancer
 - 5.5.1. Molecular Mechanisms
- 5.6. Respiratory Disorders and Obesity
 - 5.6.1. Apnea-Hypopnea Syndrome Associated with Obesity
 - 5.6.2. Obesity Hypoventilation Syndrome
 - 5.6.3. Bronchial Asthma
- 5.7. Digestive Diseases and Obesity
 - 5.7.1. Non-Alcoholic Steatohepatitis
 - 5.7.2. Gastroesophageal Reflux Diseases
 - 5.7.3. Cholelithiasis
- 5.8. Gonadotropic Axis and Obesity
- 5.9. Other Pathologies Associated to Obesity (Articular, etc.)
- 5.10. Obesity and COVID-19 Pandemic

Module 6. Prevention of Obesity and Its Comorbidities

- 6.1. Childhood Obesity
- 6.2. Prevention of Childhood Obesity I: Importance of Physical Activity
- 6.3. Prevention of Childhood Obesity II: Importance of Education and Treatment
- 6.4. Women and Weight Control
- 6.5. Strategies for the Prevention of Overweight and Obesity
 - 6.5.1. International Strategies
- 6.6. The Heart and Diabetes
 - 6.6.1. Evaluation of Cardiovascular Risk
- 6.7. Basis of the Therapeutic Approach
- 6.8. Multidisciplinary Team in the Treatment of Obesity
- 6.9. Health Systems Costs of Obesity
- 6.10. Care and Obesity: Cities Alliance Against Obesity

Module 7. Dietary Treatment of Obesity

- 7.1. Carbohydrates and Proteins in the Prevention and Treatment of Obesity
- 7.2. Dietary Fat and its Role in Body Weight Regulation
- 7.3. Balanced Low-Calorie Diet. Eating Patterns
 - 7.3.1. Nutrient Distribution
- 7.4. Exchange Diet
 - 7.4.1. Plan
 - 7.4.2. Menus
- 7.5. The Mediterranean Diet: Prevention and Treatment of Obesity
 - 7.5.1. PREDIMED
- 7.6. Food Groups: Light and Functional Foods
- 7.7. Magic or Miracle Diets
 - 7.7.1. Dissociated Diets
 - 7.7.2. Exclusion Diets
 - 7.7.3. Fasting Diet
- 7.8. Very Low-Calorie Diet
- 7.9. Diets and Maintaining Weight Lost
- 7.10. Diet in the Treatment of Comorbidities

Module 8. Physical Activity and Obesity

- 8.1. Influence of Physical Activity on Energy Balance
- 8.2. Functional Assessment of an Obese Patient
 - 8.2.1. Motor Skills
 - 8.2.2. Flexibility
 - 8.2.3. Muscular Strength
 - 8.2.4. Cardio-Respiratory
- 8.3. Functional Assessment of Obesity Comorbidities
- 8.4. Quantification of Physical Activity (Questionnaires, Records, etc.)
- 8.5. Types of Physical Exercise in Obesity Treatment
 - 8.5.1. Aerobic
 - 8.5.2. HIIT
 - 8.5.3. Strength Training

- 8.6. Principles of Physical Exercise.
 - 8.6.1. Frequency (F)
 - 8.6.2. Duration
 - 8.6.3. Intensity
- 8.7. Physical Activity in Childhood and Adolescence in the Prevention of the Overweight and the Obese
- 8.8. Physical Activity: Guidelines and Consensus
- 8.9. Cardio-Respiratory Rehabilitation and Mechanics of Obese Patients. Rehabilitation after Bariatric Surgery
- 8.10. Importance of Physical Activity in Maintaining Weight

Module 9. Psychological and Psychiatric Aspects of Obesity

- 9.1. Body Image, Social Stereotypes and the Stigmatization of Obesity
 - 9.1.1. Obesity Throughout History
 - 9.1.2. Dieting and the Weight Loss Industry
- 9.2. The Role of Emotional Factors, Anxiety Disorders, State of Mind and ADHD in Obesity
 - 9.2.1. Eating to Alleviate Psychological Distress
 - 9.2.2. Anxiety
 - 9.2.3. Depression
 - 9.2.4. ADHD
 - 9.2.5. Other Psychological Factors
- 9.3. Eating Disorders and Food Intake (DSM 5)
 - 9.3.1. Pica
 - 9.3.2. Rumination Disorder
 - 9.3.3. Food Avoidance/Restriction of Food Intake Disorder
 - 9.3.4. Anorexia Nervosa
 - 9.3.5. Bulimia Nervosa
 - 9.3.6. Binge Eating Disorder
 - 9.3.7. Other Disorders: Night Eating Syndrome
- 9.4. Explanatory Models, Differential Diagnosis and the Treatment of Eating Disorder Comorbidities in Obesity
 - 9.4.1. Obesity, Binge Eating Disorder and the Food Restriction Theory

- 9.5. Techniques to Promote Motivation to Change
 - 9.5.1. Importance of the Therapeutic Relationship
 - 9.5.2. Transtheoretical Model of Prochaska and Di Clemente
 - 9.5.3. Motivational Interview of Miller and Rollnick
- 9.6. Psychological Assessment in Bariatric Surgery
 - 9.6.1. Areas of Evaluation and Contraindications
- 9.7. Psychological Intervention in Obesity Treatment
 - 9.7.1. Cognitive-Behavioural Treatment Program. Efficient Techniques
 - 9.7.2. Relapse Prevention
- 9.8. Group Treatment Programs
 - 9.8.1. Intervention Focused on Cognitive Distortions
 - 9.8.2. Self-help Groups
- 9.9. Psychological Intervention in Childhood Obesity
 - 9.9.1. Habit and Behaviour Modifications
- 9.10. Prevention of Obesity and Eating Disorders
 - 9.10.1. Early Identification of Risk Factors
 - 9.10.2. Prevention Workshops

Module 10. Pharmacological Treatment of Obesity

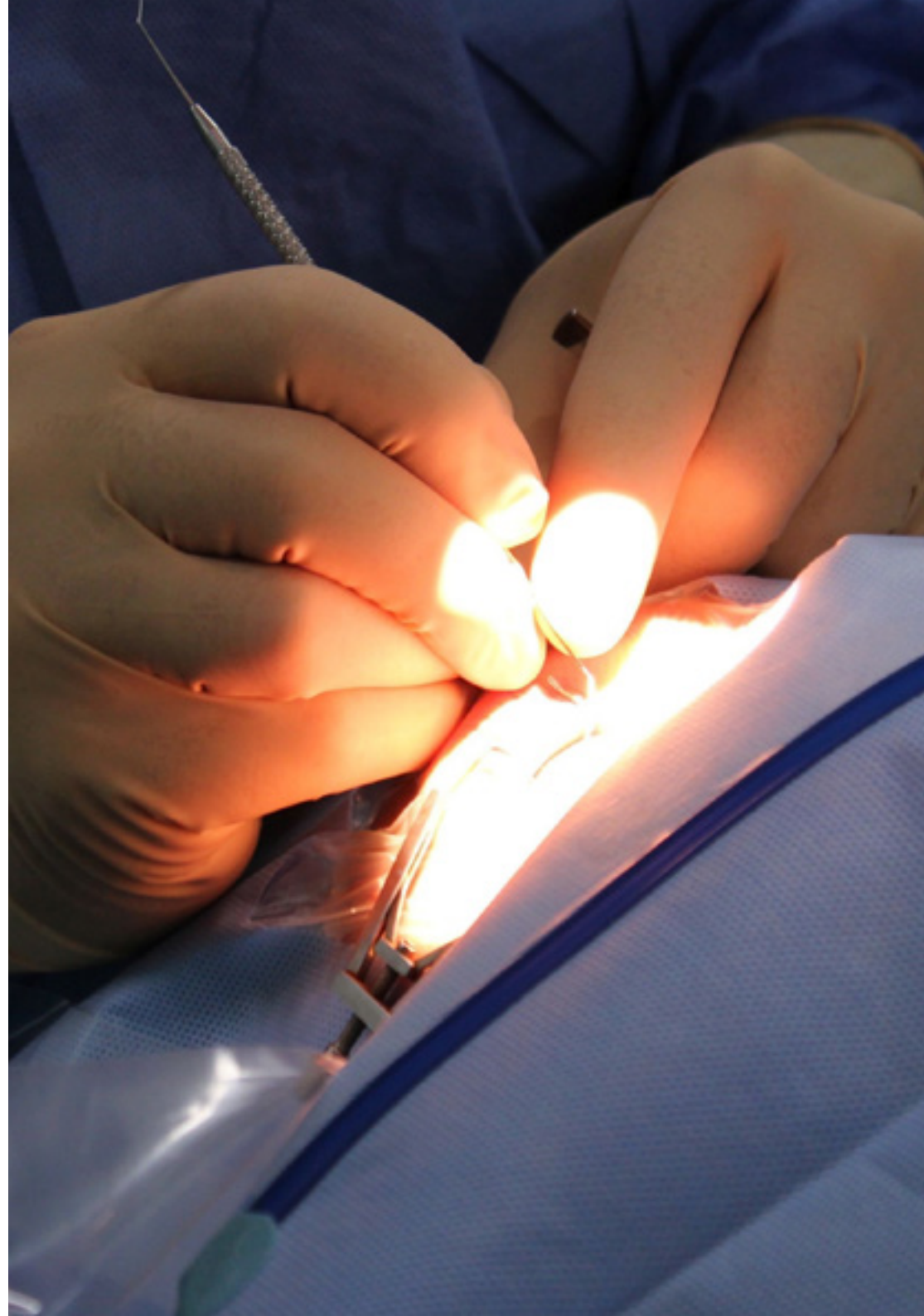
- 10.1. Orlistat
 - 10.1.1. Xendos Study
- 10.2. Liraglutide
 - 10.2.1. Scale Study
- 10.3. Naltrexone/ Bupropion
 - 10.3.1. COR Study
- 10.4. Anti-Obesity Drugs: When to Use Them and How Long to Use Them
 - 10.4.1. Treatment Algorithms
- 10.5. Commercialized Drugs in Europe
- 10.6. Non-Commercialized Drugs in Europe
- 10.7. Drugs Causing Unintentional Weight Loss
- 10.8. Miracle Drugs
- 10.9. Future Treatments of Obesity
- 10.10. Pharmacokinetic Modifications in the Obese Patient Before and After Bariatric Surgery

Module 11. Surgical Treatment of Obesity

- 11.1. Evidence Levels
- 11.2. Indications and Contraindications
- 11.3. Preoperative Evaluation and Patient Selection
- 11.4. Surgical Techniques
 - 11.4.1. Malabsorptive
 - 11.4.2. Restrictive
 - 11.4.3. Mixed
- 11.5. Metabolic and Adaptive Surgery
- 11.6. Bariatric Surgery Complications
- 11.7. Bariatric Surgery Emergencies
- 11.8. Postoperative Follow-Up
- 11.9. Gestation After Bariatric Surgery
- 11.10. Future of Bariatric Surgery

Module 12. Endoscopic and Percutaneous Treatments in Obesity

- 12.1. Intra-gastric balloon (Oballon, ELIPSE)
- 12.2. Endobarrier
- 12.3. Vertical Endoluminal Gastroplasty (EndoCinch)
- 12.4. Transoral Gastroplasty (TOGA)
- 12.5. Endoscopic Plication (Apollo)
- 12.6. Gastric Electrical Stimulation (Gastric Pacemaker)
- 12.7. Neurostimulation of the Dermatomes of the Abdomen
- 12.8. Neurostimulation of the Dermatomes of the Abdomen
- 12.9. POSE
- 12.10. ASPIRE Method



Module 13. Endoscopic Treatment of Obesity and the Overweight

- 13.1. History of Surgical Treatment of Morbid Obesity
- 13.2. Adjustable Gastric Band
- 13.3. Vertical Gastrectomy
- 13.4. Gastric Bypass Roux-en-Y
- 13.5. Gastric Bypass of One Anastomosis
- 13.6. Biliopancreatic Diversion
- 13.7. Duodenal Crossover
- 13.8. ADIS
- 13.9. Nissen-Sleeve
- 13.10. Other techniques: SASI, Intestinal Bipartition, Gastric Plication, Banding Techniques

Module 14. Perioperative Management

- 14.1. ERAS Program in Bariatric Surgery
- 14.2. Multidisciplinary Management of the Bariatric Patient
- 14.3. Patient Information, Objectives and Establishing Realistic Expectations
- 14.4. Psychological Assessment
- 14.5. Perioperative Nutritional Management for Patients Put Forward for Bariatric Surgery
- 14.6. Thromboembolic Prophylaxis in Bariatric Surgery Prevention Measures for Surgical Site Infections
- 14.7. Antiemetic Prophylaxis and Goal-Directed Fluid Therapy
- 14.8. Early Mobilization and Reintroduction of Oral Feeding
- 14.9. Impact of Physical Training Programs on the Maintenance of Weight Loss Before and After Bariatric Surgery
- 14.10. Optimization of Comorbidities Prior to Bariatric Surgery

Module 15. Bariatric Surgery Patient Emergencies

- 15.1. Semiology of Abdominal Pathology and Complementary Explorations in Emergencies in Patients with a History of Bariatric Surgery
- 15.2. Complications of Endoscopic Procedures (Intragastric Balloon, POSE, (Apollo).
- 15.3. Fistula Management After Bariatric Surgery
- 15.4. Intestinal Obstruction of the Upper and Lower Digestive Tract (Bridles, Internal Hernias, Trocars, etc.) after Bariatric Surgery
- 15.5. Acute Digestive Complications: Marginal Ulcer of Anastomotic, Stenosis, Diarrhea, Proctalgia

- 15.6. Management of Bleeding after Bariatric Surgery (Upper GI Hemorrhage, Hemoperitoneum)
- 15.7. Hepato-Biliary Complications Secondary to Post-Surgical Intestinal Malabsorption. Bacterial Overgrowth
- 15.8. Medical Complications Related to Bariatric Surgery (Dumping Syndrome, Reactive Hypoglycemia, Cardiopulmonary, Renal)
- 15.9. Nutritional or Toxic Deficiency Emergencies
- 15.10. Chronic Pain after Bariatric Surgery: A Challenge for the Multidisciplinary Team

Module 16. Revisional Bariatric Surgery (RBS)

- 16.1. Definition and Indications of Revision Surgery
- 16.2. Revision Surgery of Techniques No-Longer Used
- 16.3. Revision Surgery Following Adjustable Gastric Band
- 16.4. Revision Surgery after a Vertical Gastrectomy
- 16.5. Revision Surgery after a Gastric Bypass
- 16.6. Revision Surgery after a One Anastomosis Bypass
- 16.7. Revision Surgery after a Duodenal Crossover
- 16.8. Revision surgery after BPD
- 16.9. Revision surgery after SADI-S
- 16.10. Role of Endoscopic Surgery in the Management of Complications and Weight Regain

Module 17. Postoperative Follow-Up and Supplementation

- 17.1. Postoperative Follow-Up and Screening for Nutritional Deficiencies
- 17.2. Postoperative Supplementation Mineral and Vitamin Supplements
- 17.3. Nutritional Recommendations after Restrictive Techniques
- 17.4. Nutritional Recommendations after Mixed Techniques
- 17.5. Nutritional Recommendations after Malabsorptive Techniques
- 17.6. Nutritional Management of Patients Suffering from Complications (Critical Patients)
- 17.7. Specific Nutritional Requirements in Children and Adolescents
- 17.8. Special Nutritional Requirements in the Elderly
- 17.9. Special Nutritional Requirements in Women (Pregnancy, Breastfeeding and Menopause)
- 17.10. Postoperative Management of Specific Complications: Anemia, Protein Malnutrition and Neurological Disorders

Module 18. Basics of Metabolic Surgery

- 18.1. Metabolic Syndrome and Mediators of Inflammation
- 18.2. Pathophysiology of Diabetes Medical and Dietary Treatment of Diabetes
- 18.3. Role of Gastrointestinal Hormones in the Resolution of Type 2 Diabetes Mellitus after Bariatric Surgery
- 18.4. Concept of Metabolic Surgery, Concept and Scientific Evidence
- 18.5. Importance of Loop Lengths in Bariatric Surgery
- 18.6. Influence of the Microbiota in Bariatric Surgery
- 18.7. Obesity and NASH Role of the Liver as Metabolism Regulator
- 18.8. Influence of Bile Acids
- 18.9. Influence of Bariatric Surgery on Hypogonadism and Polycystic Ovary Syndrome (POS)
- 18.10. Timing of Metabolic Surgery and Its Effect on the Pancreas

Module 19. Transplantation, Abdominal Wall and Special Situations in Bariatric Surgery

- 19.1. Technical Considerations in the Perioperative Management of the Morbidly Obese Patient with Associated Abdominal Wall Pathology
- 19.2. Solid Organ Transplant and Bariatric Surgery
- 19.3. Obesity and Gastroesophageal Reflux
- 19.4. Management of a Morbidly Obese Patient What is the Ideal Strategy?
- 19.5. Surgery of the Patient with BMI <35
- 19.6. Pregnancy and Bariatric Surgery
- 19.7. Adolescents and Bariatric Surgery Technique and Results
- 19.8. Effects of Bariatric Surgery on Bone Metabolism
- 19.9. Other Special Situations in Bariatric Surgery
- 19.10. Sarcopenia and Loss of Muscle Mass



Module 20. Innovation, Quality of Life, Training and Clinical Management in Bariatric Surgery

- 20.1. Application of Robotics in Bariatric Surgery
- 20.2. Application of NOTES and Single Port in Bariatric Surgery
- 20.3. Quality of Life after Bariatric Surgery
- 20.4. Bariatric Surgery Cost-Benefit Studies
- 20.5. Waiting List Management and Candidates Selection in Bariatric Surgery
- 20.6. Experimental Animal and Thiel Cadaver Training in Bariatric Surgery
- 20.7. Bariatric Tourism
- 20.8. Quality Standards after Bariatric Surgery. What is the Current Evidence?
- 20.9. Aesthetic and Body Contouring Surgery
- 20.10. Creation of Behavioral Therapy Programs for Maintaining Weight Loss after Surgery

“*A comprehensive specialized program that will take you through the necessary training to compete with the best in your profession”*



06

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.

“

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.



07 Certificate

The Advanced Master's Degree in Obesity and Bariatric Surgery guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree's issued by TECH Technological University.



“

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

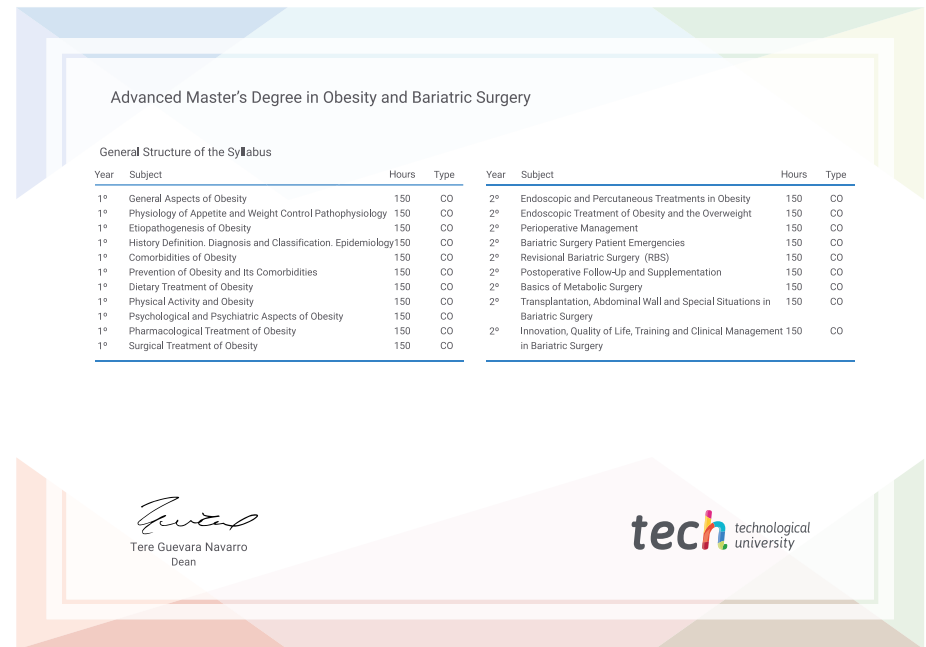
This **Advanced Master's Degree in Obesity and Bariatric Surgery** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Advanced Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Advanced Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Advanced Master's Degree in Obesity and Bariatric Surgery**

Official N° of Hours: **3,000 h.**



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

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development language

virtual classroom

tech technological
university

Advanced Master's Degree

Obesity and Bariatric
Surgery

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Advanced Master's Degree Obesity and Bariatric Surgery

