

# Hybrid Professional Master's Degree

## Obesity





## Hybrid Professional Master's Degree Obesity

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

Website: [www.techtute.com/in/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-obesity](http://www.techtute.com/in/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-obesity)

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# 01

# Introduction

Obesity is the main factor in numerous serious pathologies that affect millions of people around the world. It is, therefore, a condition with great implications at the health care level and this causes great efforts to be made in scientific research to prevent it or treat it adequately. For this reason, the health field in charge of metabolism and obesity is undergoing constant transformations, forcing the specialist to keep up to date. This program offers the physician an update in this field, thanks to its combination of advanced theoretical contents and an intensive internship in a prestigious center in this specialty. This way, at the end of the degree, the professional will be in possession of the latest techniques and treatments in this complex area.





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*Update yourself with this Hybrid Professional Master's Degree and learn about the latest developments in obesity and metabolic disorders”*

Among the major problems in the area of public health, obesity is one of the most widespread. Millions of people around the world suffer from some degree of overweight, which is often accompanied by serious pathologies such as diabetes. Therefore, there is an increasing amount of research in this field that seeks to provide an answer to this issue, both to prevent and treat it. For this reason, numerous advances are being made in areas such as nutrition and endocrinology, which seek to offer the best solutions for treating patients with obesity.

Physicians, therefore, need to be up-to-date in this field, so that they can incorporate into their clinical practice the best treatments and procedures to counteract this condition. And to meet this challenge, this Hybrid Professional Master's Degree in Obesity presents a combination of innovative theoretical content and an internship in a healthcare institution that is perfect for those specialists who want to get up to date with all the advances in this discipline.

In this program they will be able to delve, theoretically, into the latest developments in aspects such as the etiopathogenesis of obesity, nutritional genomics, metabolically healthy obese people, diabetes, carbohydrates and proteins in the prevention and treatment of obesity or gastrointestinal hormones in the regulation of body weight, among many others. And they will do so following an online methodology that will be adapted to their professional circumstances, and then, after completing this theoretical-practical phase, they will move on to the internship.

The internship will take place in a health center of renowned prestige, and will be held from Monday to Friday, over 3 weeks, with an intensive schedule of 8 hours a day. In this way, this internship will be an experience very close to the professional one, which will facilitate the application of the updated knowledge obtained in the workplace.

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

- More than 100 clinical cases presented by medical experts in obesity and metabolism
- Its graphic, schematic and practical contents provide scientific and assistance information on those medical disciplines that are essential for professional practice
- Access to real patients with pathologies associated with obesity
- Comprehensive systematized action plans for the main pathologies related to the Obesity and Metabolism
- Presentation of practical workshops on procedures, diagnosis, and treatment techniques in critical patients
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Practical clinical guides on approaching different pathologies
- Special emphasis on test-based medicine and research methodologies in Obesity
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection
- Additionally, students will be able to carry out a clinical internship in one of the best hospitals in this field

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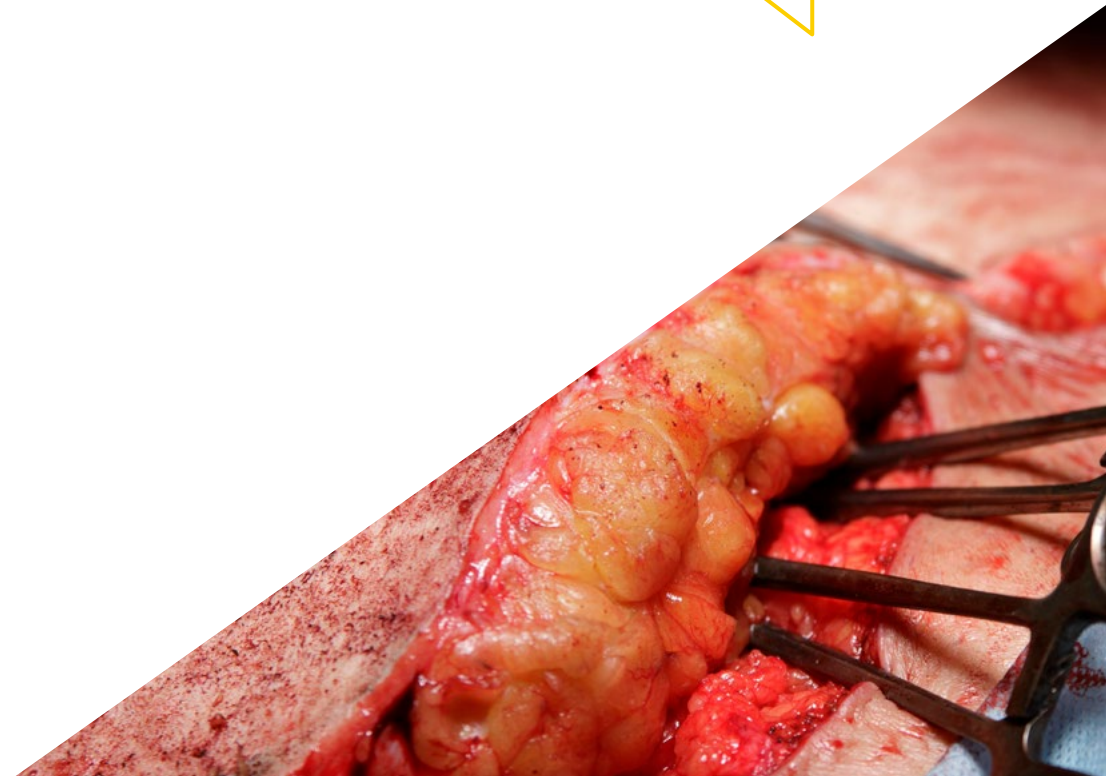
*Combine online learning through 10 specialized modules with a 3-week intensive internship in this program that will provide you with the most up-to-date knowledge in Obesity”*

*This updating program will allow you to get up to date in all the pathologies related to obesity thanks to its eminently practical approach.*

*This program is adapted to your professional circumstances, as it has been designed especially for practicing specialists.*

In this Hybrid Professional Master's Degree proposal, of a professionalizing nature and hybrid learning modality, is aimed at updating medical professionals who wish to obtain an up-to-date in the field of obesity and metabolic disorders. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge into clinical practice.

Thanks to the multimedia content, developed with the latest educational technology, medical professionals will benefit from situated and contextual learning, i.e., a simulated environment that will provide immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



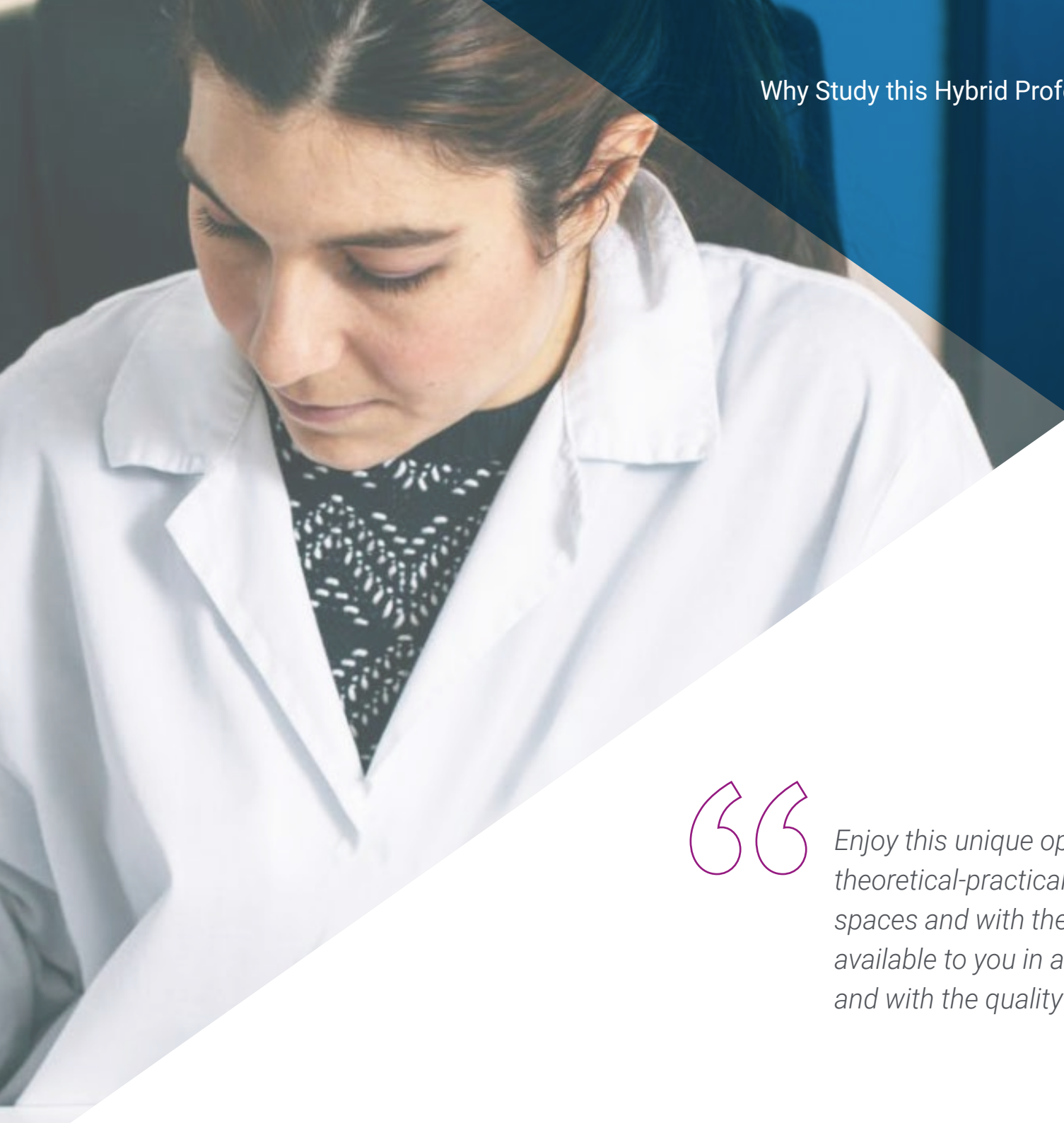
# 02

## Why Study this Hybrid Professional Master's Degree?

For today's patients, it is essential to have a specialist who offers the most advanced and effective treatments for their obesity situation. Therefore, as a physician it is not enough to have theoretical knowledge, but to advance with practice in terms of pharmacological, surgical and psychological treatment necessary to provide innovative and immediate solutions to people who come to their service. TECH in its premise of providing high academic level specialization and up to date with the needs of the world population, has developed this program where the student will experience both the up-to-date theoretical part, as well as the technical part in a specialized clinical center. This way, in just 1 year of preparation, students will be able to demonstrate in their professional development everything they have learned from prestigious specialists from around the world, which only this educational platform can offer.







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*Enjoy this unique opportunity of theoretical-practical learning in state-of-the-art spaces and with the most specialized resources available to you in an easy, comfortable way and with the quality you deserve”*

### 1. Updating from the latest technology available

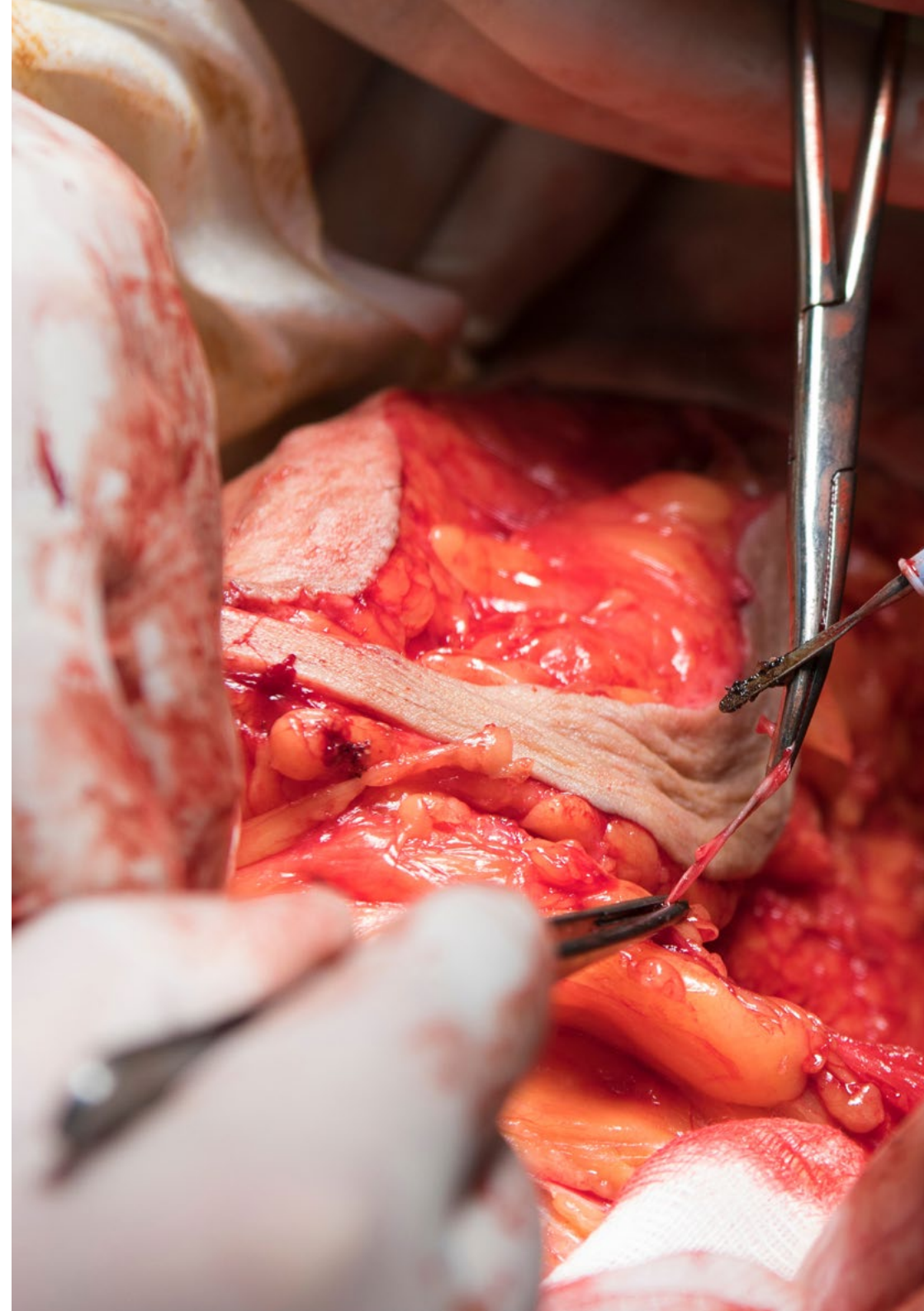
TECH in its interest to bring the student closer to the most advanced studies and scientific and technological discoveries on obesity treatment, has created this theoretical and practical program, where they will combine the virtual and on-site learning, with an internship in a specialized clinical center for the health care of the patient with obesity. Therefore, in just 12 months they will be able to check the wide range of technology and resources available for the care of patients with this condition, from the initial care to the postoperative period.

### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The student will be trained under the supervision of the best specialists for a whole year, both from the virtual platform where they will delve into a study material designed by real experts, as well as during the internship in an international reference center. At all times they will have the guidance of a tutor and a professional team, which will guide them in every doubt to advance easily and quickly.

### 3. Entering First-Class Clinical Environments

The professional will experience a 3-week internship, where they will see real cases and carry out activities typical of their profession. Therefore, they will be able to check in a modern environment, with the most specialized technical resources, the praxis of the specialist in eating disorders and obesity in general.





#### 4. Combining the Best Theory with State-of-the-Art Practice

This program has been designed under the most advanced methodology, based on Relearning, for the theoretical content and with an exclusive practical space, which aims to provide the student with all the up-to-date knowledge regarding the diagnosis and treatment of obesity, both in adult and pediatric patients. In this way, they will be at the forefront of state-of-the-art procedures regarding this pathology and in just 12 months they will be able to have a qualification that certifies them.

#### 5. Expanding the Boundaries of Knowledge

This educational platform offers the possibility of 100% online study for the theoretical part of the program, removing all borders for its students. In addition, it opens the doors of specialized centers for the clinical part in different locations so that the student can choose the one that best suits their needs and learning expectations, always under the guidance of the best specialists in the field. A unique opportunity that only TECH, could offer.



*You will have full practical immersion at the center of your choice"*

# 03 Objectives

The main objective of this Hybrid Professional Master's Degree in Obesity is to provide physicians with the latest knowledge in this health area, so that they can incorporate into their clinical practice the latest scientific advances in issues such as leptin in the regulation of body weight, metabolic signals and weight control or the weight of environmental factors in obesity, among many others. In this way, they will be able to offer the most innovative treatments in their daily professional practice.





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*Reach your goal in learning about the latest developments in obesity thanks to this program, which will provide you with all the cutting-edge knowledge you need”*



## General Objective

- The general objectives of this program are, on the one hand, to update the physician's knowledge of the new trends in human nutrition both in health and in pathological situations through evidence-based medicine and, on the other hand, to 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



*Thanks to the internship you will be able to quickly apply the innovative knowledge acquired during the theoretical modules"*





## Specific Objectives

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### Module 1. 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 2. Etiopathogenesis of Obesity

- ◆ Acquire in-depth knowledge of the genetic factors present in 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 3. 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 adiposity-based chronic disease 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 assess a patient with obesity, throughout the different periods of life
- ◆ Interpreting the existence of the so-called metabolically healthy obese

### Module 4. The Comorbidities of Obesity

- ◆ Familiarize yourself with the concept of comorbidity associated with obesity
- ◆ Deepen understanding of the pathophysiology of these comorbidities
- ◆ Study the different endocrine-metabolic and cardiovascular comorbidities
- ◆ 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 non-metabolic and non-cardiovascular comorbidities associated with obesity, especially respiratory and digestive comorbidities, etc
- ◆ Review of the basic concepts on the available scientific evidence of these pathologies, especially the relationship between obesity and cancer
- ◆ Finally, we will review the most up-to-date knowledge on COVID-19 infection in obese patients

### Module 5. 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 6. Dietary Treatment of Obesity

- ♦ Conduct a review of the evidence regarding carbohydrate and protein intake in the prevention and treatment of obesity
- ♦ Delve into 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 7. 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
- ♦ Physical activity as a habit to prevent obesity
- ♦ Physiotherapeutic approach in comorbidities of obesity and its importance in the treatment of these
- ♦ Delve into the work of physiotherapy in surgical approaches to obesity (pre and post-surgery)



### **Module 8. 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
- ♦ Conduct 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
- ♦ Delve deeper into the 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 life style
- ♦ Expand knowledge of psychological examinations before and after bariatric surgery
- ♦ Present the psychotherapeutic approach from the cognitive behavioral therapy point of view, which has been demonstrated as being the most effective treatment for addressing obesity in both adults and children
- ♦ Emphasize the importance of early detection of psychological and educational variables that contribute to the development of eating disorders and obesity in order to carry out preventative actions

### **Module 9. 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
- ♦ Miracle drugs that have been used in the treatment of obesity are reviewed
- ♦ 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 10. 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 reasons for urgency after bariatric surgery
- ♦ Familiarization in the follow-up of pregnancy after bariatric surgery

# 04 Skills

Physicians will be able to update their competences in the nutritional and endocrinological areas, delving deeper into obesity and the main metabolic conditions, thanks to this Hybrid Professional Master's Degree, which will represent a great professional advance thanks to its eminently practical approach. Therefore, the internship offered by this degree is essential in this process, since the specialist will be able to put into practice all the new skills acquired.



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*Update your knowledge in an intensive way in obesity with this Hybrid Professional Master's Degree”*



## General Skills

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- Analyze the different methods for assessing nutritional status
- List the different causes of secondary obesity in relation to endocrinopathies and drugs
- Correctly assess a patient with obesity, throughout the different periods of life
- Comprehension peculiarities of obesity in women
- Explain the methodology of a diet to maintain the lost weight
- Recognize the main comorbid psychiatric disorders associated with obesity and psychopathology related to eating disorders



*TECH chooses the best specialists in medicine for each of its programs in the healthcare area. Its mission is to achieve the best update for the professionals of the present and future”*





## Specific Skills

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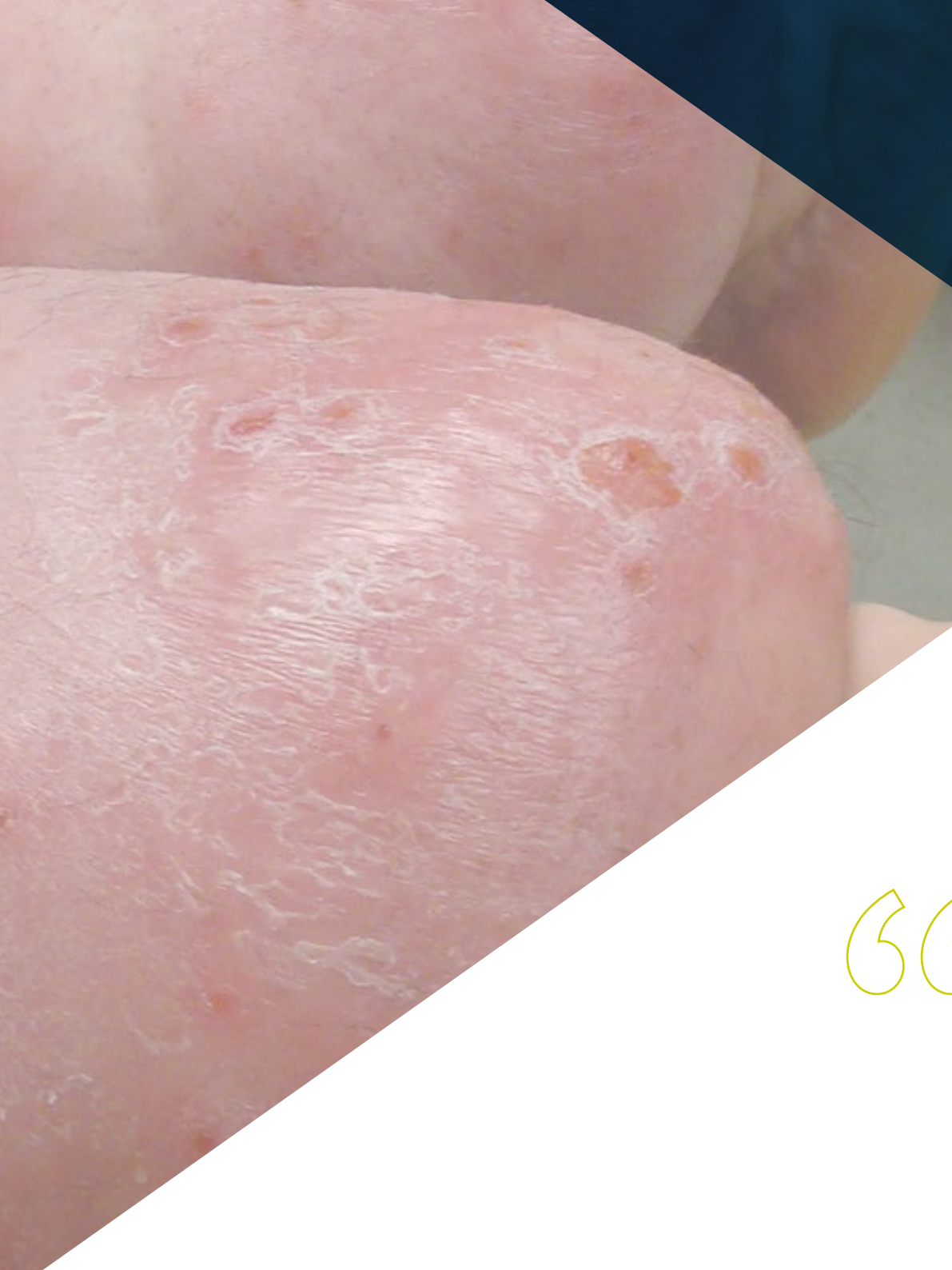
- ◆ Explain the role of the intestinal microbiota and its implications in diseases.
- ◆ Analyze advances in nutritional genomics, both in nutrigenetics and nutrigenomics
- ◆ Gain an in-depth understanding of obesity as a clinical condition and its historical evolution
- ◆ Identify the pathophysiological mechanisms linking hypertension and obesity
- ◆ Recognize the relationship between lipid disorders and obesity, especially atherogenic dyslipidemia
- ◆ 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
- ◆ 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 field, aimed at increasing the chances of success in multidisciplinary intervention in overweight and obesity
- ◆ Analyze how the pharmacological effect is controlled and the results we can expect
- ◆ Identify other drugs which are already commercialized in other countries such as the USA
- ◆ Identify the surgical technique appropriate for each patient
- ◆ Identify the possible reasons for urgency after bariatric surgery

05

# Course Management

The most prestigious teaching staff, with extensive experience, and with the most cutting-edge knowledge in this field, offers the physician who takes this Hybrid Professional Master's Degree all the latest developments in the management of this condition, which has multiple implications in all types of pathologies in a large number of patients, such as children, adults and geriatrics. Therefore, it will be guaranteed that the specialist obtains, from the best, the most innovative techniques in this area.





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*The best teaching staff puts in your hands the most up-to-date knowledge in the field of obesity”*

## Guest Directors



### **Dr. Bartolomé Hernández, Laura**

- ◆ Associate Head of the Endocrinology and Nutrition Department, Jiménez Díaz Foundation University Hospital
- ◆ Head of the Body Aesthetics Unit at the Jiménez Díaz Foundation University Hospital
- ◆ Specialist in Endocrinology and Nutrition
- ◆ Advanced Diabetology and Endocrinology Course
- ◆ Competency Course on Nutrition and Dietetics in the Management of Patients





### **Dr. Vázquez Martínez, Clotilde**

- ♦ Corporate Head of the Endocrinology and Nutrition Department, Jiménez Díaz Foundation University Hospital
- ♦ Head of the Endocrinology and Nutrition Service at the Ramón y Cajal University Hospital
- ♦ Head of the Endocrinology and Nutrition Service at Severo Ochoa University Hospital
- ♦ President of the Society of Endocrinology, Nutrition, and Diabetes of the Community of Madrid (SENDIMAD)
- ♦ Coordinator of the Therapeutic Education Group of the Spanish Society of Diabetes
- ♦ Doctor from the Faculty of Medicine of the Autonomous University of Madrid
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine of the University of Valencia
- ♦ Specialist in Pediatric Endocrinology and Nutrition via MIR at the Jiménez Díaz Foundation University Hospital
- ♦ Abraham García Almansa Clinical Nutrition Lifetime Achievement Award
- ♦ Recognized among the 100 best Doctors in Spain according to Forbes list
- ♦ Castilla - La Mancha Diabetes Foundation (FUCAMD) Diabetes and Nutrition Lifetime Achievement Award

## Management



### Dr. Puigdevall Gallego, Víctor

- ♦ Assistant Physician in Endocrinology and Nutrition at the Internal Medicine Service of the Soria Hospital Complex
- ♦ Medical Specialist in Endocrinology and Nutrition at the the ASISA Medical Assistance Center
- ♦ Author of numerous national and international publications
- ♦ Speaker in more than 70 congresses worldwide
- ♦ Lecturer in more than 100 conferences and training courses
- ♦ Doctor of Medicine and Surgery from the University of Zaragoza
- ♦ Degree in Medicine from the University of Zaragoza
- ♦ Associate Teacher at the University of Valladolid
- ♦ Member of: Iodine Study Research Group of the Endocrinology, Diabetes and Nutrition Society of Castilla y León, Diabetes Group of the Endocrinology, Diabetes and Nutrition Society of Castilla y León

## Professors

### Dr. Sánchez Jiménez, Álvaro

- ♦ Specialist in Nutrition and Endocrinology at Jiménez Díaz Foundation University Hospital
- ♦ Nutritionist at Medicadiet
- ♦ Clinical Nutritionist Specialized in Prevention and Treatment of Obesity, Diabetes and their Comorbidities
- ♦ Nutritionist in the Predimed Plus Study
- ♦ Nutritionist at Eroski
- ♦ Nutritionist at Axis Clinic
- ♦ Professor, Master's Degree in Obesity and Comorbidities, Rey Juan Carlos University
- ♦ Professor at the Course of Excellence in Obesity at the Fundación Jimenez Díaz University Hospital
- ♦ Graduate in Human Nutrition and Dietetics from the Complutense University of Madrid
- ♦ Nutrition and Feeding in the Elderly by Complutense University of Madrid
- ♦ Nutrition and Sport for Professionals, Tripartite Foundation
- ♦ Refresher Course on Practical Type 1 and 2 Diabetes for Healthcare Professionals

**Dr. Montoya Álvarez, Teresa**

- ♦ Head of the Endocrinology and Nutrition Service of the Infanta Elena University Hospital
- ♦ Head of Volunteering at the Garrigou Foundation
- ♦ Graduate in Medicine and Surgery from Universidad de Navarra
- ♦ Master in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment at the University Rey Juan Carlos
- ♦ Course in Bariatric Antecedents of Surgery Patient Emergencies: Key References for the Attending Physician
- ♦ Member of: Institute for Health Research Jiménez Díaz Foundation, Health Commission of FEAPS Madrid and Trisomy 21 Research Society

**Dr. Fernández Vázquez, Clotilde**

- ♦ Medical Assistance Support at the Institute of Endocrinology and Nutrition of Jiménez Díaz Foundation University Hospital
- ♦ Medical Assistance Services for Medipremium through Europ Assistance
- ♦ ILUNION Sports Event Doctor
- ♦ Degree in Medicine, University of Alcalá Henares
- ♦ Master's Degree in Integrative Humanistic Psychotherapy from the Galene Institute Madrid

**Dr. Fernández Menéndez, Amanda**

- ♦ Doctor Specialist in Pediatric Endocrinology and Nutrition at the Jimenez Diaz Foundation University Hospital
- ♦ Medical Specialist in Pediatrics, Doctor Castroviejo Health Center (SERMAS)
- ♦ Attending Physician Specializing in Pediatric Endocrinology and Nutrition at La Paz University Hospital
- ♦ International Cooperation in Health and Development in India (development of health projects in the field)
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Master in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment at the Rey Juan Carlos University
- ♦ Expert in Clinical Bioethics from the Complutense University

**Ms. Labeira Candell, Paula**

- ♦ Clinical Nutritionist in the Bariatric Endoscopy Unit at HM Hospitales
- ♦ Sports and Clinical Nutritionist at the Quirónsalud Clinic of the Overweight and Obesity Institute
- ♦ Nutritionist Sports and Clinical at Medicadiet, Slimming & Nutrition
- ♦ Sports Nutritionist at CF TrivalValderas de Alcorcón
- ♦ Food and water quality analyst in the Andalusian Health Service
- ♦ Diploma in Human Nutrition and Dietetics from the Pablo Olavide University of Seville
- ♦ Bachelor's Degree in Food Science and Technology
- ♦ Diploma in Human Nutrition and Dietetics
- ♦ Master's Degree in Sports Training and Nutrition at the European University of Madrid

#### **Dr. De Cos Blanco, Ana Isabel**

- ♦ Specialist Physician in Endocrinology and Nutrition at La Paz University Hospital
- ♦ Head of the Obesity Unit of the Department of Endocrinology and Nutrition at La Paz University Hospital
- ♦ Quality Coordinator of the Department of Endocrinology and Nutrition at La Paz University Hospital
- ♦ Vice-President of the Bioethics Committee at La Paz University Hospital
- ♦ Researcher in clinical trials related to Nutrition, Metabolism, Obesity and diet-related pathologies
- ♦ Specialist in Endocrinology and Nutrition at the San Carlos Clinical Hospital
- ♦ Author of more than 80 articles in medical journals and more than 80 chapters in medical books of national coverage
- ♦ Speaker in more than 160 national and international congresses
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Degree in Medicine from the Autonomous University Madrid
- ♦ Master's Degree in Bioethics from the Complutense University of Madrid
- ♦ Member of: Spanish Society of Parenteral and Enteral Nutrition (SENPE), European Society of Parenteral and Enteral Nutrition (ESPEN), Spanish Society for the Study of Obesity (SEEDO), European Association for the Study of Obesity (EASO), Editorial Board of the Spanish journal *Obesidad*, Editorial Committee of the journal *Hospital Nutrition and Training Committee of IdiPAZ*

#### **Ms. Calderón Sánchez, Cristina**

- ♦ Dietician and Nutritionist at the General de Villalba University Hospital
- ♦ Dietician and Nutritionist at the Jiménez Díaz Foundation
- ♦ Nutritionist at San Miguel Arcángel Residence
- ♦ Graduate in Human Nutrition and Dietetics from the UOC
- ♦ Master's Degree in Nutrition and Health from the Autonomous University of Madrid

#### **Dr. León Téllez, Marta**

- ♦ Director of the Hospitalization and Internal Medicine Area of the Gerencia de Asistencia de Soria
- ♦ Coordinator of the Internal Medicine Service of the Soria Hospital Complex
- ♦ Master's Degree in Venous Thromboembolic Disease from the University of Navarra
- ♦ Master's Degree in Cardiovascular Disease from the Autonomous University of Barcelona
- ♦ Master's Degree in Clinical Management from the Universidad Internacional Menéndez Pelayo

#### **Ms. Cepero Andrés, Ana Belén**

- ♦ Specialist Physician in Clinical Psychology at the Mental Health Center of Soria
- ♦ Specialist Physician in the Psychiatric Rehabilitation Area at the SACYL
- ♦ Specialist Physician in the Area of Clinical Psychology at the Hospital General Universitario Gregorio Marañón
- ♦ Specialist Physician in the Area of Clinical Psychology at the Soria Hospital Complex
- ♦ Director of the Spanish Red Cross Center for the Care of Drug Addicts. Soria, Spain
- ♦ Degree in Psychology from the University of Salamanca
- ♦ Specialist in Neuropsychology from the National Distance Education University (UNED)

- ♦ Specialist in Clinical Psychology from the Complutense University of Madrid
- ♦ Specialist in Cognitive-Behavioral Therapy in Childhood and Adolescence by the National University of Distance Education (UNED)
- ♦ Specialist in Psychotherapy by the European Federation of Psychologists Associations
- ♦ Master's Degree in Palliative Care from the University of Valladolid
- ♦ Master's Degree in Psychopathology and Health from the National University of Distance Education (UNED)
- ♦ Master's Degree in Drug Addiction from the University of Valladolid
- ♦ Member of the Health Care Ethics Committee of the Soria Health Area (SACYL)

#### **Dr. Serrano Valles, Cristina**

- ♦ Medical Specialist in Endocrinology and Nutrition, University Clinical Hospital of Valladolid
- ♦ Degree in Medicine and Surgery
- ♦ Researcher at the Endocrinology and Nutrition Research Center, University of Valladolid
- ♦ Author of several specialized articles at national level

#### **Dr. Fernández Fernández, Luis**

- ♦ Medical Specialist in the Department of General Surgery and Digestive System at the University Hospital Complex of Soria
- ♦ Medical Specialist in the General Surgery and Digestive System Service at the ASISA Medical Assistance Center
- ♦ Author of more than 100 publications in national and international journals
- ♦ Speaker at more than 200 congresses, conferences, lectures and seminars
- ♦ Doctor of Medicine from the University of Barcelona
- ♦ Degree in Medicine and Surgery from the Autonomous University of Barcelona
- ♦ Member of the Colorectal Cancer Unit of the General Hospital of Soria

#### **Dr. Laudo Pardos, Consuelo**

- ♦ Specialist in Family and Community Medicine
- ♦ Attending Physician in Family and Community Medicine
- ♦ Principal Researcher and collaborator in several projects
- ♦ Author of numerous scientific publications
- ♦ Teacher in Undergraduate and Postgraduate studies in Medicine
- ♦ Doctor of Medicine and Surgery from the University of Zaragoza
- ♦ Master's Degree in Dietetics and Nutrition from the University of Cadiz

#### **Ms. García Lázaro, Sandra**

- ♦ Sports Physiotherapist
- ♦ Physiotherapist at the Peruvian Judo Federation
- ♦ Physiotherapist at the Soria Squash Gymnasium
- ♦ Physiotherapist at Mutua Universal
- ♦ Degree in Physiotherapy from the University of Valladolid
- ♦ Master's Degree in Thoracic Physiotherapy by Gimbernat University School

#### **Dr. Ortega Sánchez, Higinio**

- ♦ Medical Specialist in Endocrinology and Nutrition at Marqués de Valdecilla University Hospital
- ♦ Degree in Medicine and Surgery
- ♦ Member of: Spanish Society of Endocrinology and Nutrition (SEE), Official College of Physicians of Soria

# 06

## Educational Plan

This Hybrid Professional Master's Degree in Obesity is composed, in its online phase, of 10 modules, each subdivided by another 10 topics, and throughout its development it will delve into issues such as type 2 diabetes mellitus and its relationship with obesity, dissociated and exclusion diets or anti-obesity drugs, among many others. Therefore, at the end of this stage, the physician will have obtained up-to-date knowledge on everything related to metabolism and obesity.



“

*The most complete and up-to-date syllabus on obesity is here and you can study it in a 100% online format, without interrupting your professional work”*

### Module 1. Physiology of Appetite and Weight Control Pathophysiology

- 1.1. Energy Balance
- 1.2. Adequate Energy Intake: Estimation of Energy Expenditure
  - 1.2.1. Basal Metabolism
  - 1.2.2. Voluntary and Involuntary Physical Activity
  - 1.2.3. Total Energy Expenditure
- 1.3. Nutritional Assessment
  - 1.3.1. Dietary Surveys
- 1.4. Gastrointestinal Hormones in the Regulation of Body Weight
  - 1.4.1. Ghrelin
  - 1.4.2. Obestatin
  - 1.4.3. Cholecystokinin
  - 1.4.4. GLP-1 and others
- 1.5. Leptin in Body Weight Regulation
- 1.6. Metabolic Signals and Weight Control
  - 1.6.1. Blood Sugar Levels
  - 1.6.2. Fats
- 1.7. Hypothalamic Control of Food Intake
- 1.8. Adipose Tissue as an Endocrine Organ
  - 1.8.1. Adipogenesis
  - 1.8.2. Function of Fat Cells in Obesity
- 1.9. Gut Microbiota and its Influence on the Development of Obesity
- 1.10. Healthy Nutrition

### Module 2. Etiopathogenesis of Obesity

- 2.1. Genetic Factors in Obesity
  - 2.1.1. Monogenic Obesity
  - 2.1.2. Polygenic Obesity
- 2.2. Epigenetics of Obesity
- 2.3. Secondary Obesity
  - 2.3.1. Endocrinopathy
  - 2.3.2. Drugs:

- 2.4. Nutritional Genomics
  - 2.4.1. Nutrigenetics
  - 2.4.2. Nutrigenomics
- 2.5. Environmental Factors and Obesity (i): Changes in Eating Pattern
- 2.6. Environmental Factors and Obesity (ii): Changes in Physical Activity
- 2.7. Endocrine Disruptors: Obesogens
- 2.8. Socioeconomic Status and Obesity. Environment and Obesity
- 2.9. Chronodisruption and Obesity
- 2.10. Sarcopenic Obesity

### Module 3. History Definition. Diagnosis and Classification. Epidemiology

- 3.1. Definition. Obesity through the Ages
- 3.2. Diagnosis
  - 3.2.1. Body Mass Index
  - 3.2.2. Waist Circumference
  - 3.2.3. Body Composition
- 3.3. Classification Based on Impact of Disease
  - 3.3.1. ABCD
  - 3.3.2. Edmonton Obesity Staging System
- 3.4. Epidemiology of Childhood Obesity
- 3.5. Epidemiology of Adult Obesity
- 3.6. Phenotypic Characterization of Obese Patients
  - 3.6.1. Body composition
  - 3.6.2. Energy Expenditure
  - 3.6.3. Associated Comorbidities
  - 3.6.4. Compulsive Score
- 3.7. Epidemiology of the Complications
- 3.8. Obesity in Different Stages of Life
- 3.9. Metabolically Healthy Obese People
- 3.10. New Technologies in the Treatment of Obesity





#### Module 4. The Comorbidities of Obesity

- 4.1. Diabetes Mellitus type 2 and Obesity
  - 4.1.1. Diabesity
  - 4.1.2. Pathophysiology
  - 4.1.3. Prediabetes
- 4.2. Arterial Hypertension and Obesity
  - 4.2.1. Mechanisms
- 4.3. Dyslipidemia and Obesity
  - 4.3.1. Atherogenic Dyslipemia
  - 4.3.2. Pathogenesis
- 4.4. Metabolic Syndrome. Heart Disease. Peripheral Vascular Disease and Peripheral Venous Insufficiency
  - 4.4.1. Diagnostic Criteria in Metabolic Syndrome
- 4.5. Obesity and Cancer
  - 4.5.1. Molecular Mechanisms
- 4.6. Respiratory Disorders and Obesity
  - 4.6.1. Apnea-Hypopnea Syndrome Associated with Obesity
  - 4.6.2. Obesity Hypoventilation Syndrome
  - 4.6.3. Bronquial Asthma
- 4.7. Digestive Diseases and Obesity
  - 4.7.1. Non-alcoholic Steatohepatitis
  - 4.7.2. Gastroesophageal Reflux Diseases
  - 4.7.3. Colelitiiasis
- 4.8. Hypothalamic-Pituitary-Gonadal Axis and Obesity
- 4.9. Other Pathologies Associated with Obesity (Articular, etc.)
- 4.10. Obesity and the COVID-19 Pandemic

### Module 5. Prevention of Obesity and its Comorbidities

- 5.1. Childhood Obesity
- 5.2. Prevention of Childhood Obesity: (i) Importance of Physical Exercise
- 5.3. Prevention of Childhood Obesity: (ii) Importance of Education and Treatment
- 5.4. Women and Weight Control
- 5.5. Strategies for the Prevention of Obesity and Overweight
  - 5.5.1. International Strategies
- 5.6. The Heart and Diabetes
  - 5.6.1. Evaluation of Cardiovascular Risk
- 5.7. Basis of the Therapeutic Approach
- 5.8. Multidisciplinary Team in Obesity Treatment
- 5.9. Health Service Costs of Obesity
- 5.10. Cities and Obesity: City Alliance Against Obesity

### Module 6. Dietary Treatment of Obesity

- 6.1. Carbohydrates and Protein in the Prevention and Treatment of Obesity
- 6.2. Dietary Fat and its Role in Body Weight Regulation
- 6.3. Balanced Low-Calorie Diet. Eating Patterns
  - 6.3.1. Nutrient Distribution
- 6.4. Exchange Diet
  - 6.4.1. Educational
  - 6.4.2. Menus
- 6.5. Te Mediterranean Diet: Prevention and Treatment of Obesity
  - 6.5.1. PREDIMED
- 6.6. Food Groups: 'Light' and Functional Foods
- 6.7. Magic or Miracle Diets
  - 6.7.1. Dissociated Diets
  - 6.7.2. Exclusion Diets
  - 6.7.3. Fasting Diet
- 6.8. Very Low-Calorie Diet
- 6.9. Diets and Maintaining Weight Lost
- 6.10. Diet in the Treatment of Comorbidities

### Module 7. Physical Activity and Obesity

- 7.1. Influence of Physical Activity on Energy Balance
- 7.2. Functional Assessment of an Obese Patient
  - 7.2.1. Motor Skills
  - 7.2.2. Flexibility
  - 7.2.3. Muscular Strength
  - 7.2.4. Cardio-respiratory
- 7.3. Functional Assessment of the Comorbidities of Obesity
- 7.4. Quantification of Physical Activity (Questionnaires, Records, etc.)
- 7.5. Types of Physical Exercise in Obesity Treatment
  - 7.5.1. Aerobic
  - 7.5.2. HIIT
  - 7.5.3. Strength Training
- 7.6. Principles of Physical Exercise
  - 7.6.1. Frequency (F)
  - 7.6.2. Duration
  - 7.6.3. Intensity
- 7.7. Physical Activity in Childhood and Adolescence in the Prevention of Overweight and Obesity
- 7.8. Physical Activity: Guidelines and Consensus
- 7.9. Cardio-respiratory Rehabilitation and Mechanics of Obese Patients. Rehabilitation after Bariatric Surgery
- 7.10. Importance of Physical Activity in Maintaining Weight

### Module 8. Psychological and Psychiatric Aspects of Obesity

- 8.1. Body Image, Social Stereotypes and the Stigmatization of Obesity
  - 8.1.1. Obesity Through History
  - 8.1.2. Dieting and the Weight Loss Industry
- 8.2. Role of Emotional Factors, Anxiety Disorders, Mood Disorders and ADHD in Obesity
  - 8.2.1. Eating to Alleviate Psychological Distress
  - 8.2.2. Anxiety
  - 8.2.3. Depression
  - 8.2.4. ADHD
  - 8.2.5. Other Psychological Factors

- 8.3. Eating Disorders and Food Intake (DSM 5)
  - 8.3.1. Pica
  - 8.3.2. Rumination Disorder
  - 8.3.3. Food Avoidance/Restriction of Food Intake Disorder
  - 8.3.4. Anorexia Nervosa
  - 8.3.5. Bulimia Nervosa
  - 8.3.6. Binge Eating Disorder
  - 8.3.7. Other Conditions: Night Eating Syndrome
- 8.4. Explanatory Models, Differential Diagnosis and the Treatment of Eating Disorder Comorbidities in Obesity
  - 8.4.1. Obesity, Binge Eating Disorder and the Food Restriction Theory
- 8.5. Techniques to Promote Motivation to Change
  - 8.5.1. Importance of the Therapeutic Relationship
  - 8.5.2. Transtheoretical Model of Prochaska and Di Clemente
  - 8.5.3. Motivational Interview of Miller and Rollnick
- 8.6. Psychological Assessment in Bariatric Surgery
  - 8.6.1. Areas of Evaluation and Contraindications
- 8.7. Psychological Intervention in Obesity Treatment
  - 8.7.1. Cognitive-Behavioural Treatment Program. Efficient Techniques
  - 8.7.2. Relapse Prevention
- 8.8. Group Treatment Programs
  - 8.8.1. Intervention Focused on Cognitive Distortions
  - 8.8.2. Self-help Groups
- 8.9. Psychological Intervention in Childhood Obesity
  - 8.9.1. Habit and Behaviour Modifications
- 8.10. Prevention of Obesity and Eating Disorders
  - 8.10.1. Early Identification of Risk Factors
  - 8.10.2. Prevention Workshops

## Module 9. Pharmacological Treatment of Obesity

- 9.1. Orlistat
  - 9.1.1. Xendos Study
- 9.2. Liraglutide
  - 9.2.1. Scale Study
- 9.3. Naltrexone/ Bupropion
  - 9.3.1. COR Study
- 9.4. Anti-Obesity Drugs: When to Use Them and How Long to Use Them
  - 9.4.1. Treatment Algorithms
- 9.5. Commercialized Drugs in Europe
- 9.6. Non-Commercialized Drugs in Europe
- 9.7. Drugs Causing Unintentional Weight Loss
- 9.8. Miracle Drugs
- 9.9. Future Treatments of Obesity
- 9.10. Pharmacokinetic Modifications in the Obese Patient Before and After Bariatric Surgery

## Module 10. Surgical Treatment of Obesity

- 10.1. Evidence Levels
- 10.2. Indications and Contraindications
- 10.3. Preoperative Evaluation and Patient Selection
- 10.4. Surgical Techniques
  - 10.4.1. Malabsorptive
  - 10.4.2. Restrictive
  - 10.4.3. Mixed
- 10.5. Metabolic and Adaptive Surgery
- 10.6. Complications of Bariatric Surgery
- 10.7. Bariatric Surgery Emergencies
- 10.8. Postoperative Aftercare
- 10.9. Gestation After Bariatric Surgery
- 10.10. Future of Bariatric Surgery

07

# Clinical Internship

After passing the online learning period, this degree offers a period of internship in a prestigious healthcare center. Therefore, the physician will have access to real patients, state-of-the-art equipment and an obesity specialist tutor who will guide them throughout the entire process of the internship, which will be carried out intensively over a period of 3 weeks.





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*Update yourself thanks to the intensive 3-week internship that TECH offers you within this program specialized in obesity”*

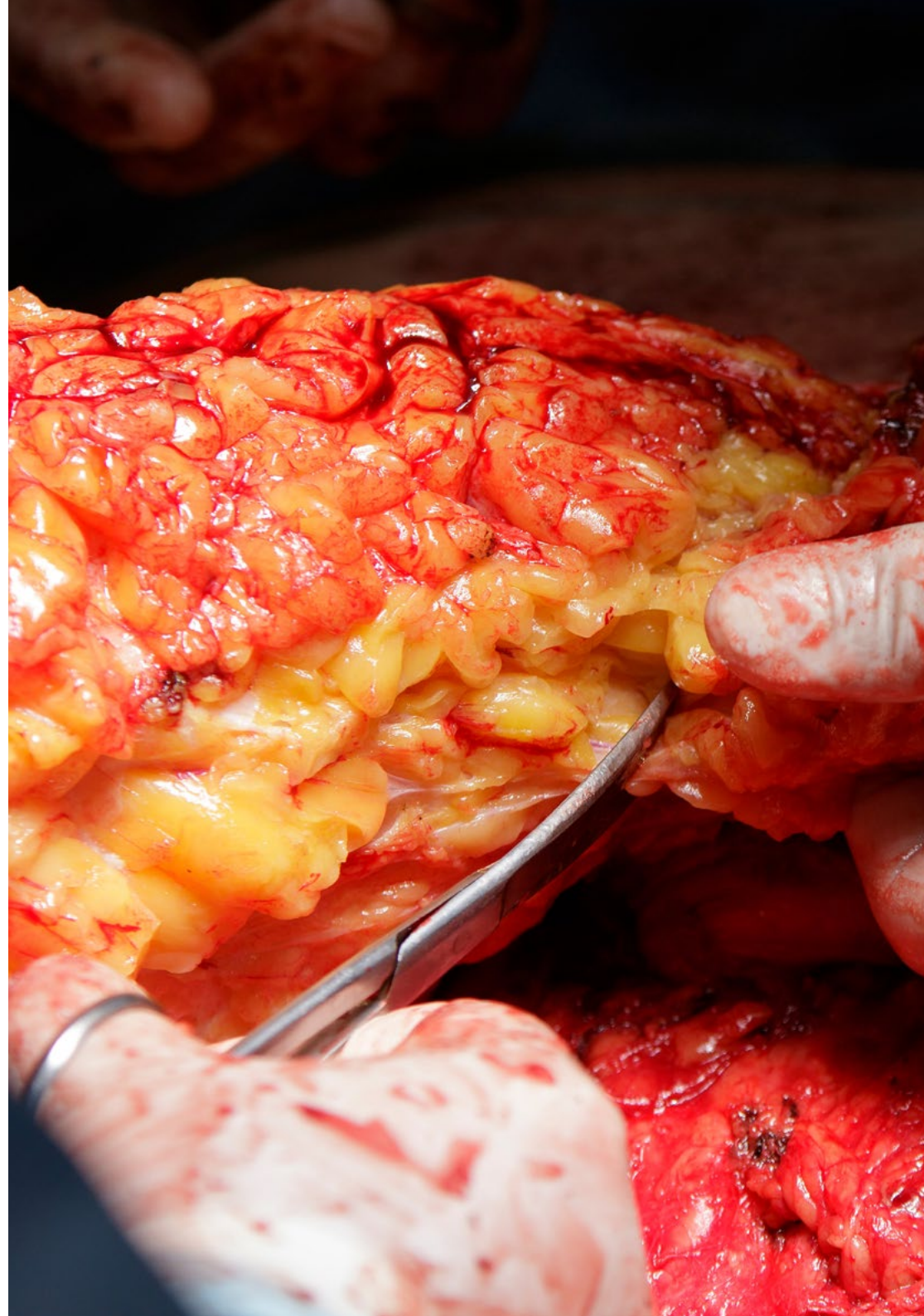
This clinical internship consists of an intensive on-site stay in a prestigious hospital center. The learning during this period will be carried out during a period of 3 weeks, in a continuous schedule of 8 consecutive hours and from Monday to Friday. Always, of course, accompanied by a specialist from the center itself, who will guide the physician throughout the stay, transmitting the most advanced knowledge in the area of obesity.

In this program proposal, of a completely practical nature, the activities are aimed at updating knowledge and skills in the fields of nutrition and endocrinology applied to obesity, so it is a practical stay that contains very specific aspects of this field and prepares the physician to have the most cutting-edge treatments in the area.

The student will actively participate by performing activities and procedures related to each area of competence (learning to learn and learning to do), with the support and guidance of the teachers and other classmates to facilitate teamwork and multidisciplinary integration as transversal competencies for the medical practice (learning to be and learning to relate to others).

“

*This qualification will give you access to a prestigious healthcare center where you can get up to date in obesity practice”*





The procedures described below will form the basis of the practical part of the training, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:

Module	Practical Activity
<b>Study and Treatment of Disorders That May Contribute to Obesity</b>	Assess social, psychiatric, or psychological factors that may alter a patient's eating patterns
	Diagnosing eating disorders such as binge eating disorder, night eating syndrome and bulimia nervosa
	Prescribe the use of pharmacological support, especially antidepressants and selective inhibitors
	Integrate into a multidisciplinary work team, taking into account the psychological, psychiatric and nutritional spheres of eating disorders
<b>Obesity-Related Complications</b>	Assess carbohydrate intolerance and type 2 diabetes, as well as polycystic ovary syndrome, as endocrinological complications associated with obesity
	Address arterial hypertension, dyslipidemia, ischemic heart disease and heart failure as circulatory complications of obesity
	Analyze the incidence of breast, endometrial, ovarian, kidney, pancreatic, esophageal, colon and rectal cancer in patients with obesity
	Perform postoperative follow-up of patients, paying special attention to staple line ruptures, suture dehiscence, ulcers, gastric ostomy stricture and pulmonary thromboembolism
<b>Obesity Treatment</b>	Prescribe a specific diet for the patient, assessing the physical exercise appropriate to the age, as well as the patient's previous situation
	Intervene in intragastric balloon and endoscopic gastric sleeve surgeries
	Get involved in complex processes of bariatric surgery, making a previous analysis of the most indicated surgical technique
<b>Techniques for the Improvement of the Mental Health of the Patient with Obesity</b>	Analyze the role of emotional factors, anxiety disorders, mood disorders and ADHD in obesity
	Apply techniques to promote motivation to change, as well as the prevention of obesity and eating disorders
	Work in a multidisciplinary way for the psychological treatment of patients with obesity

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.





## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

08

# Where Can I Do the Clinical Internship?

Once the physician has completed the online theoretical-practical learning phase, they have the opportunity to access a clinical internship in a prestigious clinical institution that TECH makes available to them. This way, they will have the opportunity not only to put into practice the new knowledge they have acquired throughout the 10 teaching modules, but also to be in contact with real patients and receive the guidance from a prestigious specialist.

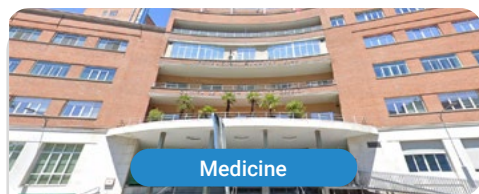


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*Complement the online theoretical-practical learning with an internship and incorporate into your work the most advanced techniques to treat and prevent obesity”*



The student will be able to complete the internship of this Hybrid Professional Master's Degree at the following centers:



Medicine

### Fundación Jiménez Díaz - Instituto de Endocrinología y Metabolismo

Country	City
Spain	Madrid

Address: Avenida Reyes Católicos 3, 28040 Madrid Fundación Jiménez Díaz (Área privada Overweight & Obesity Institute)

Center specializing in overweight and metabolic diseases

**Related internship programs:**  
- Obesity



Medicine

### Instituto de Obesidad (IOB)

Country	City
Spain	Madrid

Address: Calle Apolonio Morales 4 Bis, Esquina Menéndez Pidal, 28036 Madrid

Clinic specialized in surgical and counseling assistance to obese patients

**Related internship programs:**  
- Diet Therapy  
- Update on Bariatric Surgery



Medicine

### Hospital HM Nou Delfos

Country	City
Spain	Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain

**Related internship programs:**  
- Aesthetic Medicine  
- Clinical Nutrition in Medicine



Medicine

### Hospital HM Montepríncipe

Country	City
Spain	Madrid

Address: Av. de Montepríncipe, 25, 28660, Boadilla del Monte, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain

**Related internship programs:**  
- Palliative Care  
- Aesthetic Medicine



Medicine

### Hospital HM Sanchinarro

Country	City
Spain	Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain

**Related internship programs:**  
- Anaesthesiology and Resuscitation  
- Palliative Care



Medicine

### Varicentro-Granada

Country	City
Spain	Granada

Address: Calle Ariabal, 32 18004 Granada

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**  
- Obesity  
- Clinical Nutrition



Medicine

### Varicentro-Jerez de la Frontera

Country	City
Spain	Cádiz

Address: Plaza Madre de Dios, Edificio Sherry 11401 Jerez de la Frontera

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**  
- Obesity  
- Aesthetic Medicine



Medicine

### Varicentro-Cádiz

Country	City
Spain	Cádiz

Address: Avda. Andalucía, 16 11008 Cádiz

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**  
- Obesity  
- Clinical Nutrition



Medicine

### Varicentro-Algeciras

Country: Spain  
City: Cadiz

Address: Calle Fuerte de Santiago, 5, 11201 Algeciras

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition
  - Obesity



Medicine

### Varicentro-Córdoba

Country: Spain  
City: Cordoba

Address: Avda. del Brillante, 91 14012 Córdoba

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Obesity
  - Clinical Nutrition



Medicine

### Varicentro-Ciudad Real

Country: Spain  
City: Ciudad Real

Address: Calle Juan II, 5 13001 Ciudad Real

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition for Nursing
  - Obesity



Medicine

### Varicentro-Donostia-San Sebastián

Country: Spain  
City: Gipuzkoa

Address: Paseo de Colón, 13 20002 Donostia-San Sebastián

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition for Nursing
  - Obesity



Medicine

### Varicentro-Bilbao

Country: Spain  
City: Vizcaya

Address: Calle Pérez Galdós 48010 Bilbao

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition for Nursing
  - Clinical Nutrition



Medicine

### Varicentro-Vitoria-Gasteiz

Country: Spain  
City: Álava

Address: La Esperanza Kalea, Local comercial 2 01002 Vitoria-Gasteiz

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Obesity
  - Clinical Nutrition for Nursing



Medicine

### Varicentro-Barcelona

Country: Spain  
City: Barcelona

Address: Calle de Casanova, 103 08011 Barcelona

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition for Nursing
  - Obesity



Medicine

### Varicentro-Cáceres

Country: Spain  
City: Cáceres

Address: Calle Profesor Rodríguez Moñino, 2 10002 Cáceres

Varicentro is a specialized medical group with 23 clinics in Spain

- Related internship programs:**
- Clinical Nutrition for Nursing
  - Obesity



Medicine

### Varicentro-Badajoz

Country	City
Spain	Badajoz

Address: Avda. Sinforiano Madroñero, 22  
06011 Badajoz

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Obesity
- Clinical Nutrition



Medicine

### Varicentro-Huelva

Country	City
Spain	Barcelona

Address: Calle Puerto, 8-10 21001 Huelva

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Esthetic Nursing
- Obesity



Medicine

### Varicentro-Málaga

Country	City
Spain	Malaga

Address: Calle Fernando Camino,  
14 29016 Málaga

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Obesity
- Clinical Nutrition for Nursing



Medicine

### Varicentro-Sevilla-Buhaira

Country	City
Spain	Seville

Address: Calle Blanco White, 7, Local  
la Buhaira 41018 Sevilla

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Hair Transplantation
- Obesity



Medicine

### Varicentro-Sevilla-Nervión

Country	City
Spain	Seville

Address: Avda. Kansas City, 32 41007 Sevilla

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition for Nursing
- Esthetic Nursing



Medicine

### Varicentro-Sevilla-El Viso del Alcor

Country	City
Spain	Seville

Address: Plaza del Granadillo, S/N  
(Junto a deportes Maracaná) 41520  
El Viso del Alcor, Sevilla

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition
- Obesity



Medicine

### Varicentro-Madrid centro

Country	City
Spain	Madrid

Address: Calle Don Ramón de la Cruz, 79,  
local 4 (esq. Calle Conde Peñalver)  
28001 Madrid

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition for Nursing
- Aesthetic Medicine



Medicine

### Varicentro-Madrid-Collado Villalba

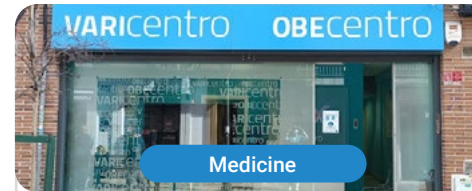
Country	City
Spain	Madrid

Address: Calle Madroños, 2, 28400  
Collado Villalba, Madrid

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition for Nursing
- Obesity



Medicine

### Varicentro-Madrid-Leganés

Country	City
Spain	Madrid

Address: Calle Butarque, 12, 28911 Leganés, Madrid

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition
- Obesity



Medicine

### Varicentro-Madrid-Móstoles

Country	City
Spain	Madrid

Address: Avda. Dos de Mayo, 35, 28934 Móstoles, Madrid

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition
- Obesity



Medicine

### Varicentro-Valladolid

Country	City
Spain	Valladolid

Address: Calle Juan de Juni, 4, 47006 Valladolid

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Obesity
- Hair Transplantation



Medicine

### Varicentro-Zaragoza

Country	City
Spain	Zaragoza

Address: Avda. Francisco de Goya 50006 Zaragoza

Varicentro is a specialized medical group with 23 clinics in Spain

**Related internship programs:**

- Clinical Nutrition
- Obesity



Medicine

### Santé Clinic Querétaro

Country City  
Mexico Querétaro de Arteaga

Address: Circuito Álamos #88 PA-B col Álamos  
2da sección Querétaro, Qro, CP 76160

Clinical center specialized in physical therapy  
and recovery

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**Related internship programs:**

- Aesthetic Medicine
- Sports Physiotherapy







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*Take advantage of this opportunity to surround yourself with expert professionals and learn from their work methodology”*

09

# 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.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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



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

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

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

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

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



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



# 10 Certificate

This Hybrid Professional Master's Degree in Obesity guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree diploma issued by TECH Technological University.





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

This **Hybrid Professional Master's Degree in Obesity** contains the most complete and up-to-date program on the professional and educational field.

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

In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

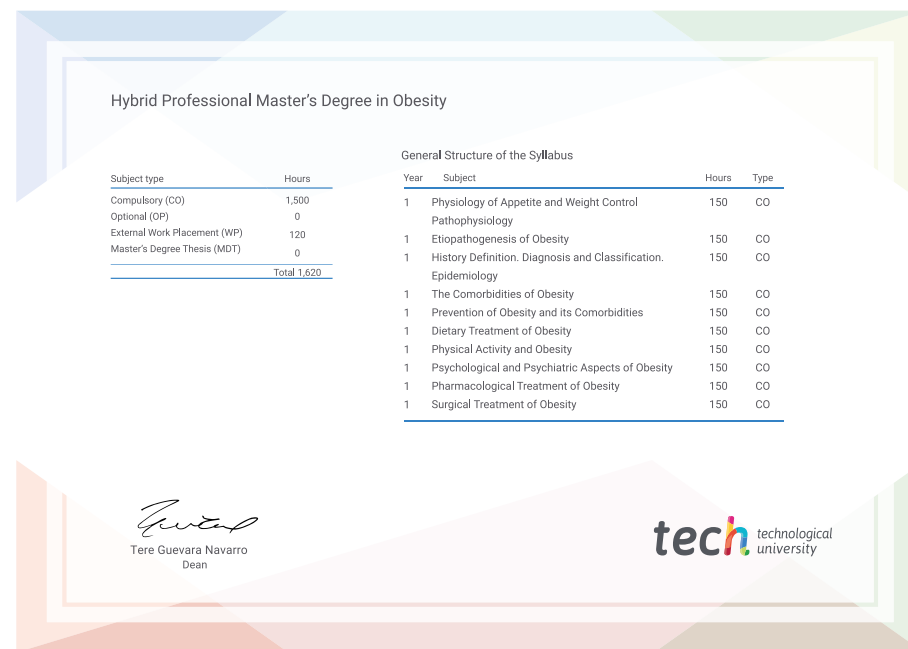
Title: **Hybrid Professional Master's Degree in Obesity**

Course Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Technological University**

Teaching Hours: **1,620 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate 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  
development languages  
virtual classroom



Hybrid Professional Master's  
Degree  
Obesity

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

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Teaching Hours: 1,620 h.

# Hybrid Professional Master's Degree

## Obesity

