

# Postgraduate Certificate Comorbidities of Obesity



## Postgraduate Certificate Comorbidities of Obesity

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/postgraduate-certificate-comorbidities-obesity](http://www.techtute.com/us/medicine/postgraduate-certificate/postgraduate-certificate-comorbidities-obesity)

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# 01

# Introduction

Obesity is associated with an increased risk of morbidity and mortality. In fact, it is difficult to find any pathology that is not more prevalent in the obese subject, nor any pathology that does not worsen with the appearance of obesity. With respect to mortality, it has been described that the risk increases 12 times with respect to the population with normal weight, most of which is due to cardiovascular causes.

This Postgraduate Certificate will develop the clear relationship between obesity and Diabetes Mellitus type 2, being obesity the main modifiable risk factor of this disease.





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*Improve the quality of care for  
your patients with this innovative  
training in Obesity”*

Obesity, the true epidemic of the 21st century until the arrival of COVID-19, represents a major global health problem. The WHO estimates that it could affect 650 million people worldwide, with a mortality rate of some 2.8 million people each year.

It is a heterogeneous syndrome whose pathophysiology and etiopathogenesis (genetics, epigenetics, new hormonal control mechanisms, nutrigenomics, microbiomics, etc.) are continuously advancing. These advances are allowing us to better understand the factors that affect the processes involved in energy homeostasis and in the development of obesity.

Obesity is a permanent focus of concern due to the ever-increasing number of cases and the related comorbidities. These lead to a significant increase in death, especially from cardiovascular illnesses and cancer. Furthermore, the various medical and surgical treatments available and the exponential increase in health care costs related to obesity also makes it a focus of attention.

With this in mind, preventing obesity is essential. Through the use of a multidisciplinary approach, the aim is to implement lifestyle changes, especially physical activity and dietary patterns, and should be introduced as early on in the process as possible.

Professionals should know how to correctly diagnose obesity and the associated complications and propose appropriate treatment strategies for the three main areas of action: nutrition, physical exercise and attitudes towards food. Drugs and bariatric surgery may be added to this list for patients who demonstrate appropriate indications for such treatments.

In the last decade, there have been enormous advances in the understanding of obesity. This has brought Precision Medicine to the forefront of treatment, requiring the professional to be adequately prepared to provide new therapeutic responses. The enormous development of new technologies such as health apps, brought about by COVID-19, allows patient empowerment and decision support.

The **Postgraduate Certificate in Comorbidities of Obesity** contains the scientific most complete and up-to-date scientific program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in Obesity
- ♦ The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ The latest information on Obesity
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ A special emphasis on innovative methodologies in Obesity
- ♦ 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



*This training is the best option you can find to specialize in the Comorbidities of Obesity"*

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*This Postgraduate Certificate is the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Obesity, you will obtain a degree endorsed by TECH Global University"*

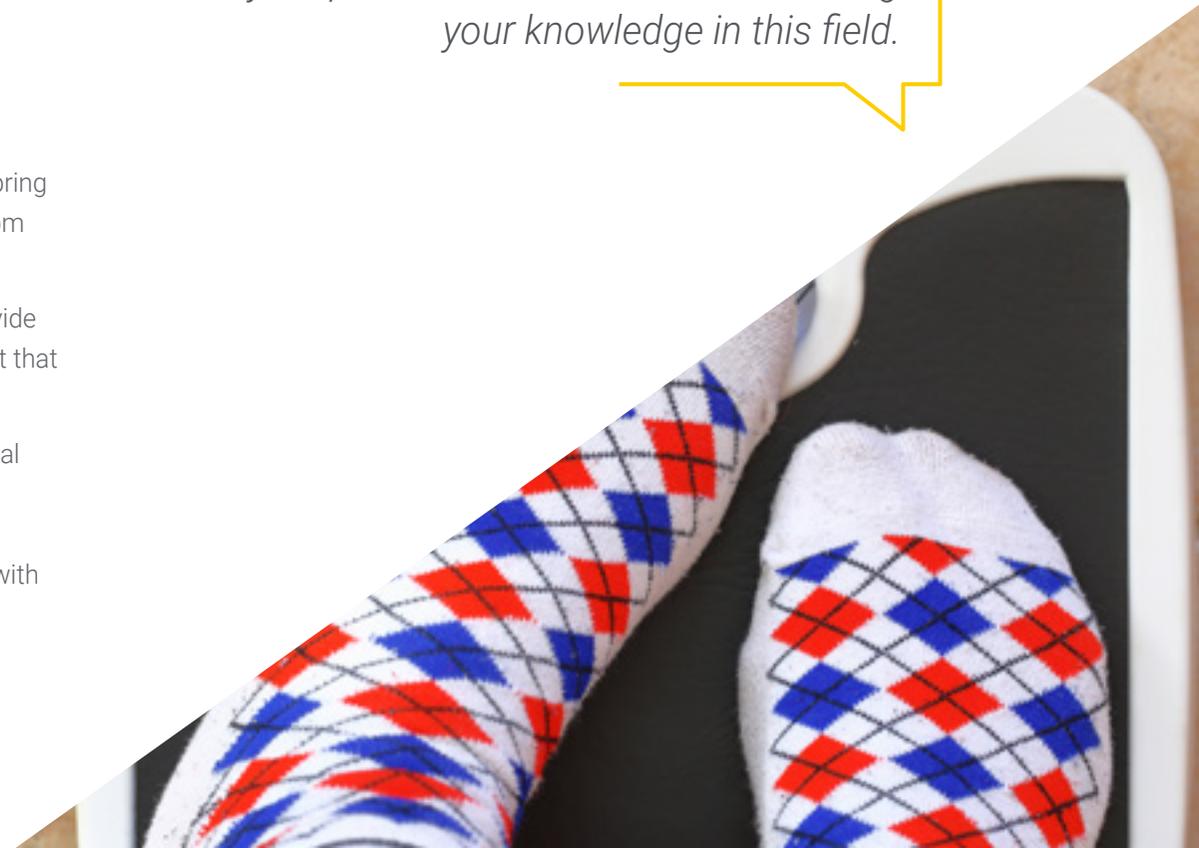
Its teaching staff includes professionals belonging to the field of psychology, who bring to this training the experience of their work, in addition to recognized specialists from prestigious reference societies and universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training 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 during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Obesity with extensive medical experience.

*Take the step and join our team. You will find the best educational material to enhance your studies.*

*This 100% Online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field.*



# 02 Objectives

The Postgraduate Certificate in Comorbidities of Obesity is aimed at facilitating the medical professional's performance with the latest advances and most innovative treatments in the sector.



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*This is your opportunity to learn about  
the latest treatments in Obesity”*



## General objective

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- To update the physician's knowledge on new trends in human nutrition in both health and pathological situations through evidence-based medicine
- 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
- Encourage the acquisition of technical skills and abilities, through a powerful audio-visual system, and the possibility of development through online simulation workshops and/or specific training
- Encourage professional stimulus through continuing education and research



*An opportunity created for professionals who are looking for an intensive and effective course with which to take a significant step forward in the practice of their profession”*





## Specific objectives

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### The Comorbidities of Obesity

- ◆ Familiarize yourself with the concept of comorbidity associated with obesity
- ◆ Gain a deeper 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, like type 2 diabetes. The risk of suffering from diabetes increases in direct proportion to the magnitude of body overweight
- ◆ Identify the pathophysiological mechanisms linking hypertension to 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 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

03

# Course Management

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





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*Leading professionals in the field  
have come together to teach you  
the latest advances in Obesity”*

## 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

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- 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

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

## Management



### Dr. Puigdevall Gallego, Víctor

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

## 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 (academic years 1989-2016).

### Dr. Serrano Valles, Cristina

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

### Dr. Ortega Sanchez, Higinio

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

### Dr. León Tellez, Marta

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

### Dr. Fernández Fernández, Luis

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

### Ms. García Lázaro, Sandra

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

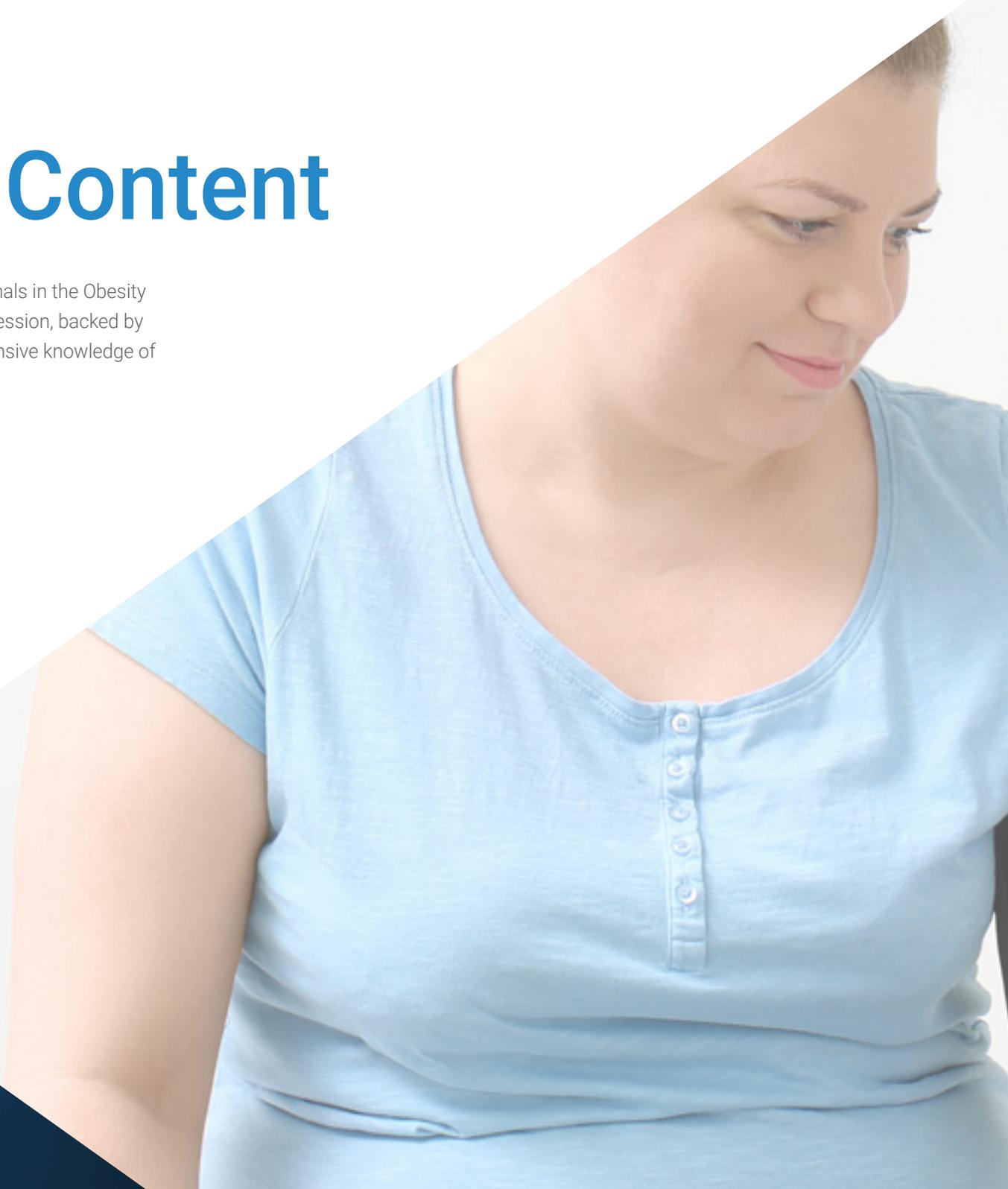
### Ms. Cepero Andrés, Ana Belén

- ♦ 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 (2014-2015).

# 04

# Structure and Content

The structure of the content has been designed by leading professionals in the Obesity Sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to anesthesiology.



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*This Postgraduate Certificate contains the most complete and up-to-date scientific program on the market”*

## Module 1. Comorbidities of obesity

- 1.1. Diabetes Mellitus type 2 and Obesity
  - 1.1.1. Diabesity
  - 1.1.2. Pathophysiology
  - 1.1.3. Prediabetes
- 1.2. Arterial Hypertension and Obesity
  - 1.2.1. Mechanisms
- 1.3. Dyslipidemia and Obesity
  - 1.3.1. Atherogenic Dyslipemia
  - 1.3.2. Pathogenesis
- 1.4. Metabolic Syndrome. Heart Disease. Peripheral Vascular Disease and Peripheral Venous Insufficiency
  - 1.4.1. Diagnostic Criteria in Metabolic Syndrome
- 1.5. Obesity and Cancer
  - 1.5.1. Molecular Mechanisms
- 1.6. Respiratory Disorders and Obesity
  - 1.6.1. Apnea-Hypopnea Syndrome Associated with Obesity
  - 1.6.2. Obesity Hypoventilation Syndrome
  - 1.6.3. Bronchial Asthma
- 1.7. Digestive Diseases and Obesity
  - 1.7.1. Non-alcoholic Steatohepatitis
  - 1.7.2. Gastroesophageal Reflux Diseases
  - 1.7.3. Cholelithiasis
- 1.8. Gonadotropic Axis and Obesity
- 1.9. Other Pathologies Associated with Obesity (Joints, etc)
- 1.10. Obesity and the COVID-19 Pandemic





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*This training will allow you to advance in your career comfortably”*

05

# Methodology

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

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

## At TECH we use the Case Method

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.



## Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best 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.

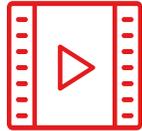
*Re-learning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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.



In this program you will have access to the best educational material, prepared with you in mind:



#### Study Material

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

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

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



#### Interactive Summaries

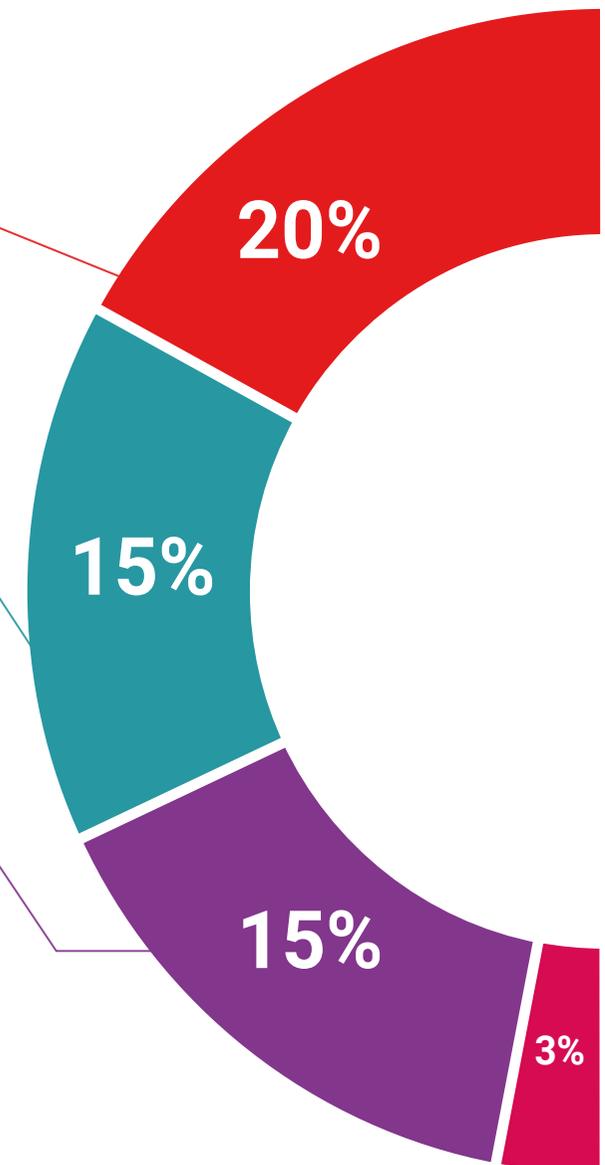
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



#### Additional Reading

Recent articles, consensus documents, international guides... in our virtual library you will have access to everything you need to complete your training.





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



**Quick Action Guides**

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



# 06 Certificate

The Postgraduate Certificate in Comorbidities of Obesity guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Comorbidities of Obesity** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

Title: **Postgraduate Certificate in Comorbidities of Obesity**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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

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



## Postgraduate Certificate Comorbidities of Obesity

- » Modality: online
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- » Certificate: TECH Global University
- » Credits: 6 ECTS
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