

# Postgraduate Certificate Diabetes Mellitus





## Postgraduate Certificate Diabetes Mellitus

- » 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/diabetes-mellitus](http://www.techtute.com/us/medicine/postgraduate-certificate/diabetes-mellitus)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

Diabetes is possibly the most researched and developed endocrinological condition, as it affects a considerable number of people in today's society. For this reason, the specialist must keep abreast of these developments, since there are many advances and incorporating them into daily practice ensures the maintenance of a high level of professional praxis. TECH has brought together the best experts in Diabetes Mellitus to develop all the contents of this university program, which delves into the etiology, etiopathogenesis and public health implications of diabetes. An excellent academic opportunity to get up to date with teachers committed to the specialist.





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*Get updated with topics dedicated to glucocorticoids, stroke, diabetic retinopathy and more theory of special interest around Diabetes Mellitus"*

In the United States, it is estimated that about 10.5% of the population suffers from diabetes. This equates to approximately 34 million people, reflecting the prevalence of this disorder in modern society.

It is the job of the specialist to offer an accurate and adequate diagnosis, because 21.3% of patients are not diagnosed, which is always an obstacle to any kind of approach. With the latest knowledge and advances at their disposal, the specialist can keep up the pace and continue to offer high professional praxis.

This course deepens and modernizes all current knowledge about the microvascular and macrovascular complications of Diabetes Mellitus, as well as the fundamental differences between type 1 and type 2 diabetes. Likewise, exclusive topics are dedicated to the genetic basis of type 2 diabetes, oral antidiabetics or insulin therapy, among other issues of special interest.

All this in a 100% online format, without the burden of pre-scheduled classes or predetermined schedules. The entire syllabus is available for download from the first day of the course and can be reviewed from any device with an internet connection. The specialist can therefore combine this program with the most demanding personal and professional responsibilities.

This **Postgraduate Certificate in Diabetes Mellitus** contains the most complete and up-to-date educational program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Endocrinology.
- ◆ 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.
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions for experts and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*The professionals who have developed the didactic resources of this program are committed to your continuous updating effort"*

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*A large amount of audiovisual and support material will help you understand much better all the update provided around Diabetes Mellitus"*

*At TECH, you make the important decisions, choosing where, when and how to take on the entire teaching load"*

*Delve into insulin resistance, with recent studies on the metabolic and molecular pathogenesis of Diabetes Mellitus"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.



# 02 Objectives

The main objective of this Postgraduate Certificate is to provide the specialist with the most current knowledge, scientific postulates and practical theory on Diabetes Mellitus. All this under a unique prism that encompasses the high quality of the teaching staff with their own experience in dealing with this pathology. Thus, the specialist will have access to real clinical cases with which to better contextualize the different topics covered.





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*The teachers of this Postgraduate Certificate have first-hand knowledge of the most important new developments in Diabetes Mellitus, giving you an excellent opportunity to contrast it with your own knowledge"*



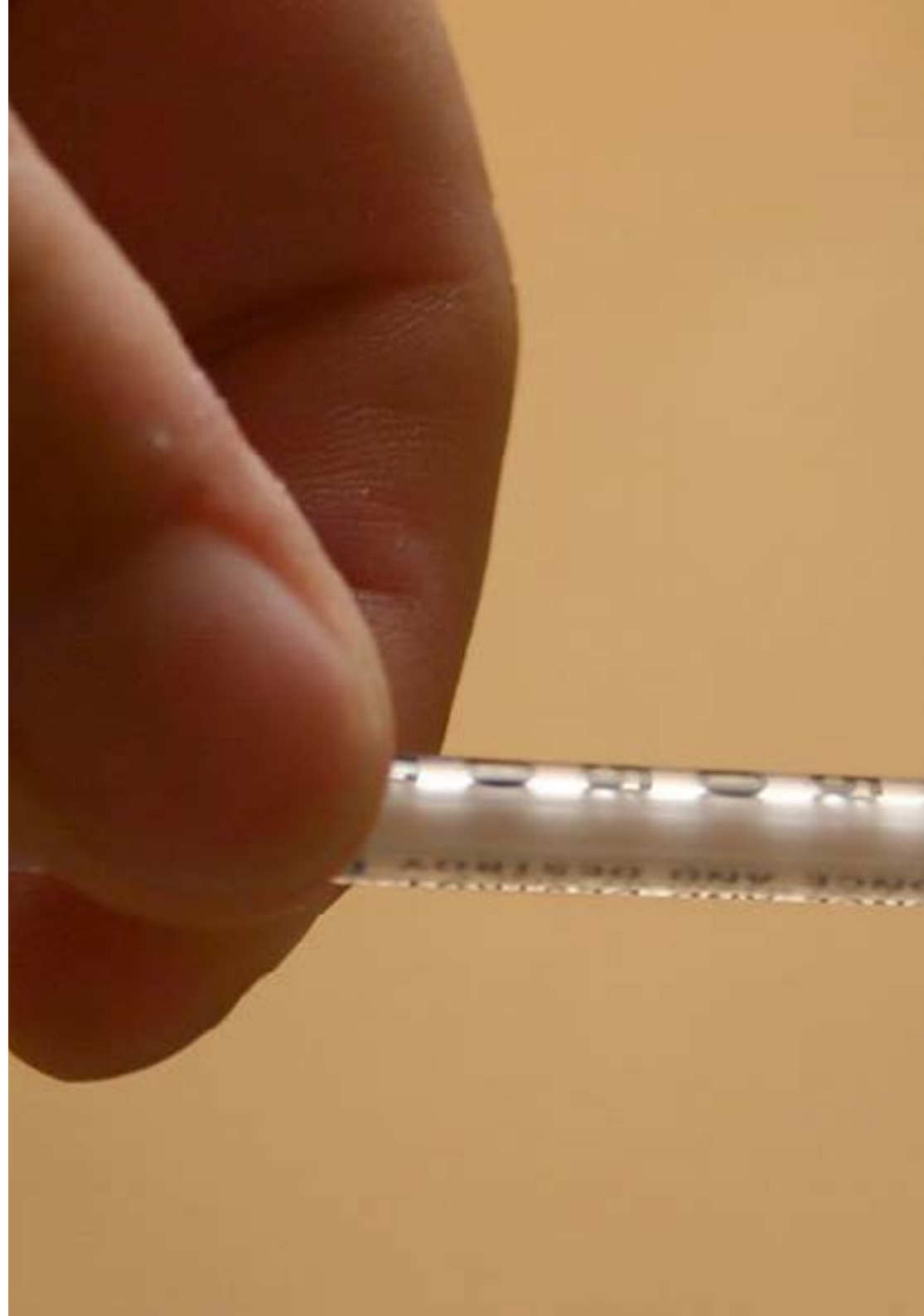
## General Objective

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- ◆ Be able to accurately interpret currently available clinical information and associate it effectively in clinical practice



*You will incorporate into your daily practice the different advances that you acquire throughout the program, even before the end of the program"*





## Specific Objectives

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- ◆ Provide and expand knowledge on the pathogenesis and pathophysiology of diabetes mellitus
- ◆ Provide the basis of knowledge of the main chronic complications (micro and macrovascular) of this pathology
- ◆ Discuss the different therapeutic options for this endocrinological disease



# 03

## Course Management

The direction and development of this program has been entrusted to the best possible group of professionals, as it is a team of experts in the approach, diagnosis and treatment of different cases of Diabetes Mellitus. This personal experience is reflected in the syllabus itself, full of real clinical cases and up-to-date advice on the complete approach to this pathology.





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*You will be able to get advice from the entire teaching team on any doubts or complications that may arise during the program"*

## International Guest Director

Awarded on multiple occasions for her contribution to the field of Medicine, Dr. Susan Samson is a prestigious physician highly specialized in **Endocrinology, Diabetes** and **Metabolism**. In fact, she has devoted most of her professional career to optimizing the overall well-being of patients with endocrine disorders, ranging from *Diabetes Mellitus* to Hyperthyroidism.

Therefore, she has carried out her duties in health institutions of international reference such as the Mayo Clinic Hospital in the United States. Among her main achievements, she has developed innovative **evaluation methodologies** based on the latest scientific evidence. This has enabled healthcare professionals to design **personalized** and more effective **treatments**, taking into account the specific needs of each user. At the same time, it has implemented various monitoring programs based on emerging technologies such as **Telemedicine** and even **Artificial Intelligence**. Thanks to this, it has enabled **real-time monitoring** of the clinical status of numerous individuals with **chronic diseases** to improve their quality of life.

On the other hand, she has balanced these tasks with her role as **President of the American Association of Clinical Endocrinology**. In this way, she has contributed significantly to the creation of **care protocols** for people with different conditions. She has also collaborated with regulatory agencies to develop **health policies** to address the optimization of care for patients with long-term conditions.

In her commitment to clinical excellence, she has led several **scientific research** projects in areas ranging from addressing **Pituitary Pathologies** or **Acromegaly** to **Cushing's Disease**. Likewise, these findings have driven advances to maximize the quality of care. In this sense, her work has been rewarded in the form of awards, such as the "Rising Star Award" given by the Baylor College of Medicine for her outstanding leadership.



## Dr. Samson, Susan

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- ♦ President of the Department of Endocrinology at Mayo Clinic Hospital in Florida, United States
- ♦ President of the American Association of Clinical Endocrinology
- ♦ Director of the Baylor St. Luke's Pituitary Center in Texas
- ♦ Internship in Endocrinology, Diabetes and Metabolism at Baylor College of Medicine
- ♦ M.D. from Queen's University
- ♦ Doctor of Philosophy with specialization in Molecular Biology, University of Calgary
- ♦ Member of the Royal College of Physicians and Surgeons of Canada

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

## Management



### **Dr. Gargantilla Madera, Pedro**

- Chief of Internal Medicine Service of El Escorial University Hospital
- Professor of the Francisco de Vitoria University
- Science communicator and regular contributor to various media (RNE, Abc digital, Huftington post, Cinco Noticias)
- Member of the Association of Medical Writers and Artists (ASEMEYA)
- Master's Degree in Clinical Unit Management





## Professors

### Dr. Carrasco Lara, Pablo

- ◆ Specialist Physician in Endocrinology and Nutrition at the El Escorial University Hospital
- ◆ Specialist in Endocrinology and Nutrition at Hospital La Luz, University Hospital of Getafe, University Hospital of Fuenlabrada and General University Hospital Gregorio Marañón
- ◆ Degree in Medicine at the Faculty of Health Sciences of the Rey Juan Carlos University in Madrid
- ◆ Master's Degree in Integration and Clinical Problem Solving in Medicine at the University of Alcalá, Madrid
- ◆ Specialty in Endocrinology and Nutrition via MIR at the University Hospital of Getafe
- ◆ Expert in Chronic Complications of Diabetes Mellitus at the University of Barcelona
- ◆ Master's Degree in Clinical Nutrition in Medicine at the CEU-Cardenal Herrera University

# 04

## Structure and Content

This program has been created in a concise and meticulous manner, comprehensively dividing all the contents into blocks of easy study and assimilation for the specialist. In addition, TECH has used the *Relearning* pedagogical methodology, which means that the most important terms are assimilated in a natural way throughout the entire syllabus. This reduces study time and allows to focus on the complementary readings or multiple exercises offered, which greatly help in the contextualization of the whole subject.





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*You will have access to a library of content of the highest quality, useful even as further reference material”*

## Module 1. Diabetes Mellitus

- 1.1. Etiology, Classification and Prevalence
- 1.2. Etiopathogenesis, Insulin Resistance and Metabolic and Molecular Pathogenesis
- 1.3. Type I Diabetes Mellitus
- 1.4. Genetic Basis of Type II Diabetes Mellitus
- 1.5. Microvascular Complications
  - 1.5.1. Pathogenesis
  - 1.5.2. Diabetic Retinopathy.
  - 1.5.3. Diabetic Nephropathy
  - 1.5.4. Diabetic Neuropathy
- 1.6. Macrovascular Complications
  - 1.6.1. Ischemic Heart Disease
  - 1.6.2. Diabetic Cardiomyopathy
  - 1.6.3. Heart Failure
  - 1.6.4. Stroke
  - 1.6.5. Peripheral Arterial Disease
- 1.7. Oral Antidiabetics
- 1.8. Insulin Therapy
- 1.9. Special Considerations
  - 1.9.1. Lipodystrophic Diabetes Mellitus
  - 1.9.2. Total Parenteral Nutrition
  - 1.9.3. Glucocorticoids
- 1.10. Diabetes and Public Health
  - 1.10.1. Type II Diabetes Mellitus Screening
  - 1.10.2. Prevention of Type II Diabetes Mellitus





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*You will find work guides, interactive summaries and multimedia videos developed by the teachers themselves, all with the most recent advances in Diabetes Mellitus”*

05

# 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

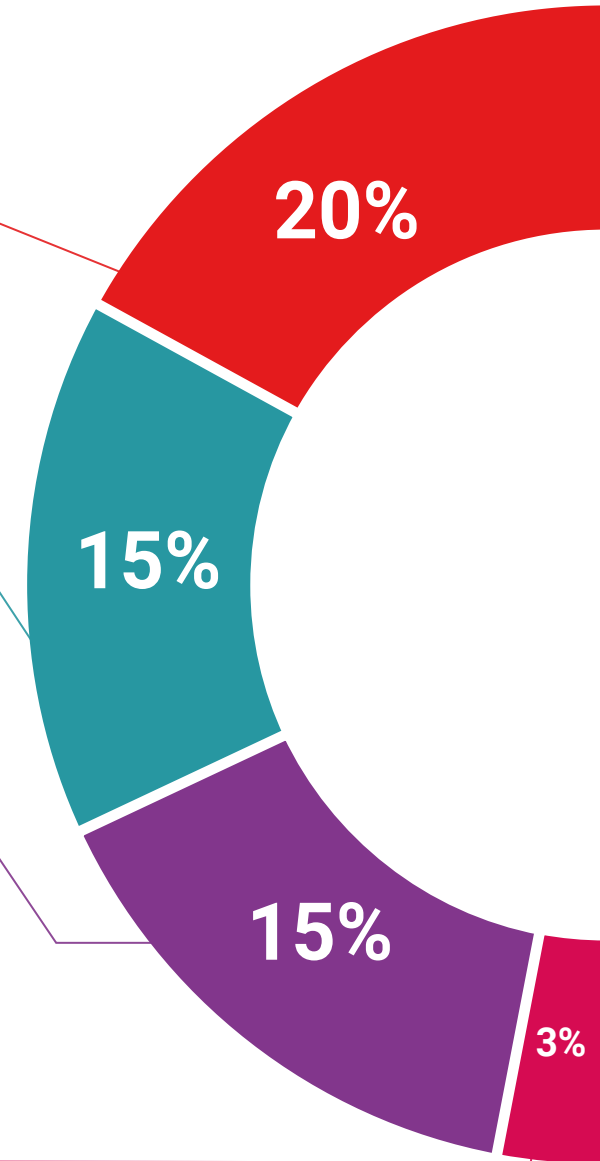
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

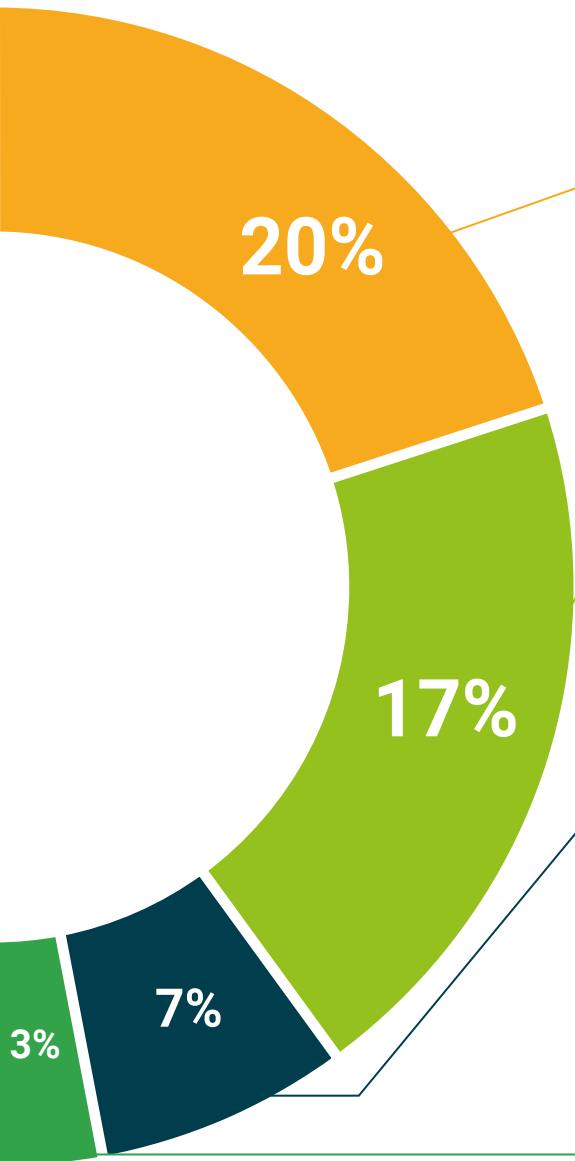
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.



06

# Certificate

The Postgraduate Certificate in Diabetes Mellitus guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Diabetes Mellitus** 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 Diabetes Mellitus**

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



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