



# Postgraduate Diploma Diabetes Complications

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 18 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-diabetes-complications

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06 Certificate





# tech 06 | Presentation

Diabetes is a complex, chronic process that requires specific knowledge and skills for a comprehensive approach that goes beyond glycemic control.

This Postgraduate Diploma in Diabetes Complications presents a global and complete vision of this disease that is useful for the proper management of patients with diabetes at any level of care.

This is a unique and innovative training program, based on an up-to-date description of the epidemiological situation of diabetes. This Postgraduate Diploma delves into the complex pathophysiology of the disease, in the comprehensive evaluation of its acute and chronic complications, from a specialized point of view, and in its integral treatment.

Its contents cover the most innovative aspects of diabetes, such as the implementation of technology to control and treat this disease, and the most innovative areas in the research of new therapeutic approaches. All this, without forgetting the crucial role of diabetes education for the control of the disease.

This program is unique in that it includes a broad view of the disease across all patient ages and special situations. It also delves into the social aspects of diabetic patients' lives that require specific knowledge so that they can be addressed.

A quality training with which you will be able to stand out in a highly competitive sector and improve your skills and knowledge in the field.

This **Postgraduate Diploma in Diabetes Complications** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Practical cases presented by experts in Diabetes
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- New developments in Diabetes
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Diabetes
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- Content that is accessible from any fixed or portable device with an internet connection





This Postgraduate Diploma is the best investment you can make in the selection of a professional program for two reasons: in addition to upgrading your knowledge in Diabetes, you will obtain a diploma from TECH Global University"

The teaching staff includes professionals from the field of Diabetes, who bring their experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 an immersion education programmed to learn 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 professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Diabetes 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
Diploma will allow you to balance
your studies with your professional
work while expanding your
knowledge in this field.







# tech 10 | Objectives



# **General Objectives**

- Act as a leading professional specialized in Diabetes.
- Deepen the knowledge related to the importance of diabetes in our environment, the different states of altered glucose metabolism, its classification and diagnostic criteria.
- Acquire the knowledge and skills necessary to deepen the chronic complications of diabetes, with the aim of acquiring an adequate management of these complications.
- Know the chronic macrovascular complications related to diabetes, as they are the main cause of mortality in patients with diabetes.



Enter one of the most creative and exciting areas of the medical world with the background of a complete professional, qualified to lead any project to success"







# **Specific Objectives**

## Module 1. The Concept of Diabetes. Epidemiology

- Deepen and acquire the latest skills and news about diabetes, as a chronic, complex and progressive disease.
- Acquire knowledge of the classification of Diabetes and the wide spectrum of etiologies that lead to its development.
- Deepen the epidemiology of type 1 diabetes and its determinants.
- Deepen in the epidemiological impact of type 2 diabetes as an epidemic in our environment.
- Acquire the knowledge and skills to detect diabetes early in the population through screeningtechniques.
- Incorporate the concept of public health to Diabetes.





# Module 2. Diabetes complications. Classification

- Learn the etiopathogenic pathways of diabetes complications in order to understand the evolutionary course of these complications and their therapeutic targets.
- Learn the classification of the chronic complications of diabetes according to whether the small vessels or large vessels are mainly affected and according to the organ affected.
- Acquire epidemiological knowledge about diabetic nephropathy in order to be able to assess the importance of its prevention and diagnosis.
- Learn the pathophysiological basis and risk factors involved in diabetic nephropathy.
- Know the evolutionary stages of kidney disease and the current classification of kidney disease.
- Know when and how screening for DN should be performed in the diabetic population.
- Learn the specific treatments for ND
- Acquire epidemiological knowledge about DR in order to be able to assess the importance of its prevention and diagnosis.
- Learn the pathophysiological basis and risk factors involved in DR.
- Know the evolutionary stages of DR and its current classification.
- Know when and how DR screening should be performed in the diabetic population.
- Learn about specific DR treatments and new avenues of research in this field.
- Acquire epidemiological knowledge about diabetic nephropathy in order to be able to assess the importance of its prevention and diagnosis.
- Learn the pathophysiological basis and risk factors involved in diabetic neuropathy (NeuroD).
- Know the evolutionary stages of NeuroD and its current classification.



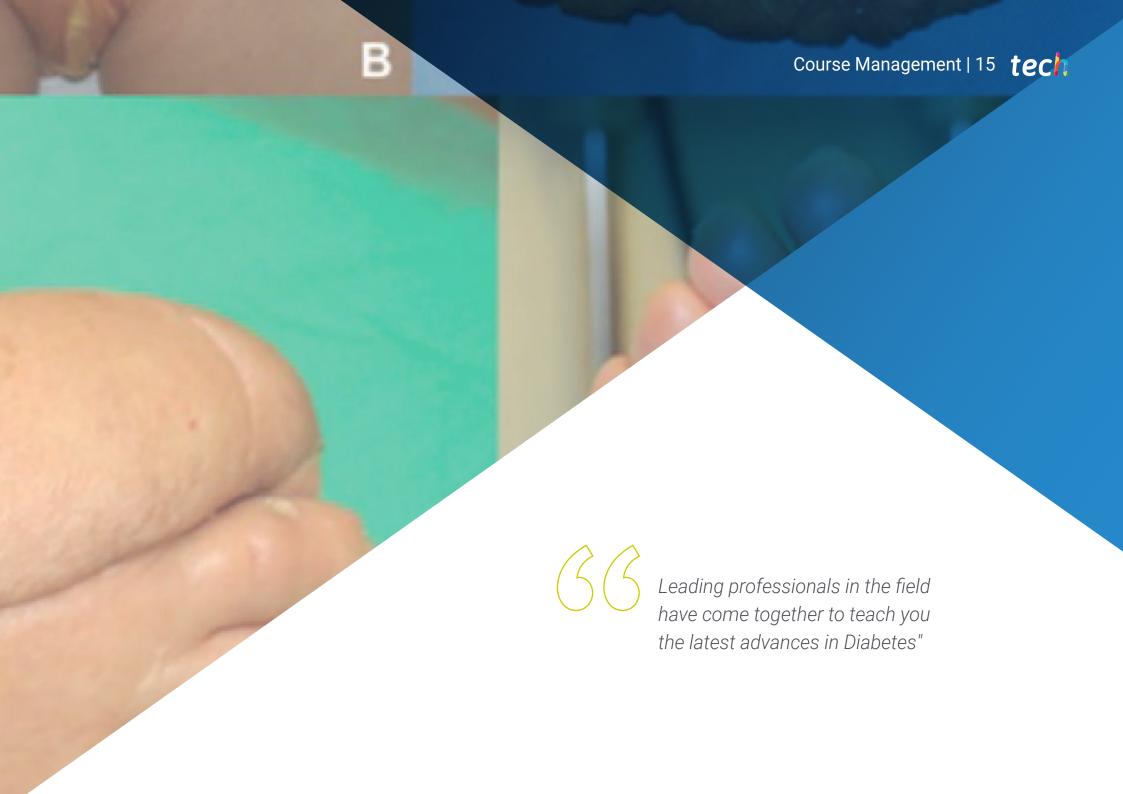




# Module 3. Macrovascular complications of diabetes and other medical entities.

- Deepen the current data on the epidemiology of macrovascular disease in diabetes.
- Deepen the current data on the epidemiology of hypertension in diabetes.
- Deepen on the current data on the Epidemiology of dyslipidemia in diabetes.
- Deepen the knowledge of current data on the Epidemiology of smoking in diabetes.
- Learn how to design a smoking cessation program.
- Acquire the knowledge and skills necessary to screen for coronary heart disease in diabetics.
- Acquire the knowledge and skills necessary for the screening of diabetic heart failure.
- Acquire the knowledge and skills for the initial management of the diabetic heart failure patient.
- Acquire the knowledge and skills necessary to perform screening tests for peripheral arterial disease in diabetics.
- Learn to critically interpret glycemic control targets in the diabetic patient in secondary prevention.
- Acquire the knowledge and skills necessary to develop the criteria for referral to a hepatologist for and a patient with suspected hepatic steatosis.
- Acquire the knowledge and skills necessary for the assessment of chronic lung disease in diabetics.
- Acquire knowledge about the prevalence and association between diabetes and cancer.
- Acquire the knowledge and skills necessary for the screening of mood disorders, especially depression in diabetic patients.





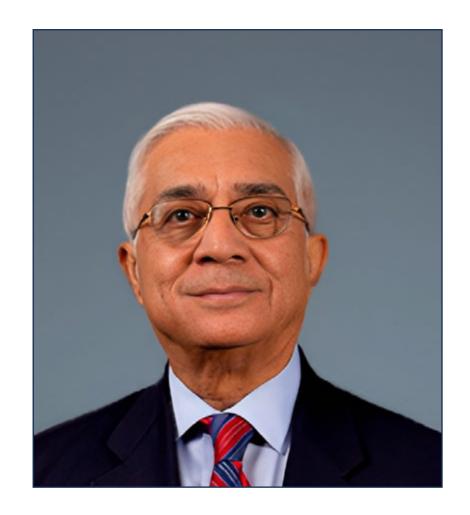
#### **International Guest Director**

More than **four decades of experience** in **Diabetes** research and clinical practice endorse the outstanding career of Dr. Om Ganda. He was part of one of the **most relevant trials in this field**, the 1993 DCCT, which demonstrated the importance of glucose control in the prevention of complications in type 1 diabetes. Likewise, his numerous contributions to this area have allowed outstanding advances in the optimal control of glucose in patients with Diabetes. In recent years, he has directed his research focus to the study of the effects of Omega-3 fatty acids on cardiovascular health and the improvement of treatments for people who have difficulty maintaining a diet or exercising.

He has accumulated **more than 100 scientific** publications in the area of Diabetes, the most cited being those related to the development of a Comprehensive Plan of Care for Diabetes Mellitus (in collaboration with the American Society of Clinical Endocrinologists), the Insulin Resistance Syndrome or the Treatment of Dyslipidemia and Prevention of Atherosclerosis.

His extensive career has led him to direct, as **Medical Director**, the Lipid Clinic Joslin Diabetes Center, where he has also been **Coordinator of the Endocrinology Consultation Service** and Coordinator of Conferences on Clinical Diabetes and Metabolism. He combines these responsibilities as a Researcher being an active part of the Joslin Research Laboratory.

He is also an Associate Professor of Medicine at Harvard Medical School and has held several Clinical and Research Fellowships at Harvard, Boston Veterans Administration Hospital and Peter Bent Brigham Hospital.



# Dr. Ganda, Om

- Director of the Lipid Clinic at Joslin Diabetes Center, Boston.
- Coordinator of the Endocrine Consultation Service at Joslin Diabetes Center
- Researcher at Joslin Research Laboratory
- Associate Professor of Medicine at Harvard Medical School
- M.D. from All India Institute of Medical Sciences
- Graduate in Medicine from S.M.S. Medical College of the University of Rajasthan
- ClinicalFellow in Endocrinology and Metabolism at the Boston Veterans Administration Hospital and Tufts University School of Medicine.
- ResearchFellow at Harvard Medical School
- ResearchFellow at Peter Bent Brigham Hospital
- Sub-specialty Board Certified in Endocrinology and Metabolism by the American Society of Internal Medicine.



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

# Management



# Dr. González Albarrán, Olga

- Head of Endocrinology and Diabetes at the Gregorio Marañón University Hospital in Madrid.
- Specialist in Endocrinology and Nutrition.
- Degree in Medicine from the Autonomous University Madrid
- Doctor with Cum Laude and Extraordinary Prize in Medicine from the University of Alcalá de Henares.
- Associate Professor at the Complutense University of Madrid.
- Master's Degree in Clinical Nutrition from the Autonomous University of Madrid
- Master's Degree in Cardiovascular Risk from McMaster University.
- Master's Degree in Management of Endocrinology Clinical Units, Meléndez Pelayo University.
- Spanish Society of Endocrinology and Nutrition Award

# **Professors**

## Dr. Galdón Sanz-Pastor, Alba

- Physician Specialist in Endocrinology and Nutrition
- Assistant Physician of the Endocrinology Service of the Gregorio Marañón Hospital.
- Author of several national and international specialized publications.
- Degree in Medicine from the Complutense University of Madrid.

# Dr. López Guerra, Aurelio

- Specialist in Endocrinology and Nutrition.
- Assistant Physician of the Endocrinology Service of the Gregorio Marañón University Hospital of Madrid.
- Degree in Medicine, University of Las Palmas de Gran Canaria.

# Dr. Weber, Bettina

- Assistant Physician in the Endocrinology Department of the General University Hospital Gregorio Marañón, Madrid.
- Degree in Medicine from the Complutense University of Madrid.
- Specialist in Endocrinology and Nutrition.

# Dr. Chacín Coz, Juan Simón

- Physician Specialist in Endocrinology and Nutrition
- Endocrinologist at the Fundación Jiménez Díaz University Hospital in Madrid.
- Adjunct Physician at Rey Juan Carlos University Hospital, Madrid.
- Medical Degree from the Central University of Venezuela.
- Member of the Spanish Society of Endocrinology and Nutrition.

#### Dr. Atencia Goñi, José

- Assistant Physician in the Endocrinology Department of the General University Hospital Gregorio Marañón, Madrid.
- Specialist in Endocrinology and Diabetes at the Gregorio Marañón University Hospital in Madrid
- Physician at the Hospital Vithas Madrid La Milagrosa
- Physician at Ruber Internacional Hospital in Madrid
- Residency in Division of Endocrinology, Metabolism, and Lipids.
   Emory University, Atlanta
- Degree in Medicine from the University of Navarra
- Education in neuroendocrine tumors

# Dr. Chacín Coz, Juan Simón

- Physician Specialist in Endocrinology and Nutrition
- Endocrinologist at the Fundación Jiménez Díaz University Hospital in Madrid.
- Adjunct Physician at Rey Juan Carlos University Hospital, Madrid.
- Medical Degree from the Central University of Venezuela.
- Member of the Spanish Society of Endocrinology and Nutrition.

# Dr. Muñoz Moreno, Diego

- Resident Physician in Endocrinology and Nutrition at the Gregorio Marañón General University Hospital.
- Postgraduate Diploma in the treatment of type 2 diabetes mellitus from the Autonomous University of Barcelona.
- Master's Degree in Endocrine Oncology from the CEU Cardenal Herrera University.
- Degree in Medicine from the University of Alcalá de Henares.

# Dr. Rivas Montenegro, Alejandra Maricel

- Physician of the Endocrinology and Nutrition Service at the Gregorio Marañón General University Hospital in Madrid.
- Master's Degree in Clinical Reasoning and Practice at the University of Alcalá de Henares.
- Degree in Medicine at the Catholic University of Ecuador.

### Dr. Pérez López, Gilberto

- Assistant Physician of Endocrinology and Nutrition, Gregorio Marañón General University Hospital, Madrid.
- Coordinator of the Working Group on Childhood and Adolescent Obesity in the Spanish Society for the Study of Obesity (SEEDO).
- Medical Director of the Spanish Association of Klinefelter Syndrome.
- Doctorate in Medicine, University of Alcala
- Specialist in Endocrinology and Nutrition at the Ramón and Cajal University Hospital.
- Specialist in Pediatrics and its specific areas at the Ramón and Cajal University Hospital.
- University Specialist in Clinical Genetics at the Alcalá University.
- Degree in Medicine from the University of Panama

# Dr. Miguélez González, María

- Assistant Physician of Endocrinology and Nutrition at the Jiménez Díaz Foundation University Hospital in Madrid.
- Degree in Medicine from the University of Valladolid
- Collaborating lecturer in the subject of Ophthalmology at the Complutense University of Madrid.
- Professor of the Master Expert in Obesity and Metabolic Complications, endorsed by SEEDO.





# tech 22 | Structure and Content

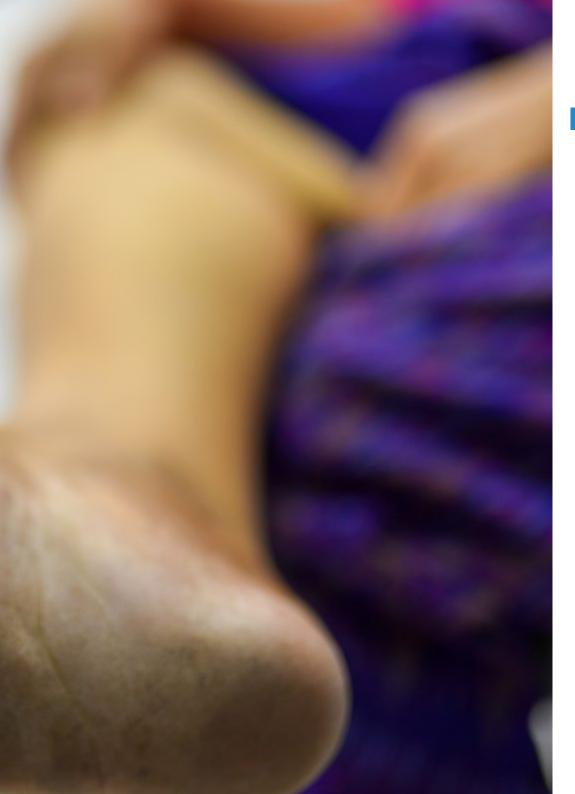
# Module 1. The Concept of Diabetes. Epidemiology

- 1. Diabetes Historical Recollection
- 2. Classification of Diabetes and Other Categories of Glucose Intolerance
- 3. Gestational Diabetes
- 4. Diabetes and Genetic Syndromes
- 5. Diabetes and Exocrine Pancreatic Diseases
- 6. Pharmacological Diabetes
- 7. Epidemiology of Type 1 Diabetes
- 8. Epidemiology of Type 2 Diabetes
- 9. Type 2 Diabetes and Prediabetes Screening
- 10. Diabetes and Population Health

# Module 2. Diabetes complications. Classification

- 1. Classification of Diabetes Complications and their Impact on the Person with Diabetes
- 2. Pathophysiology of Microvascular Complications
- 3. Pathophysiology of Macrovascular Complications
- 4. Diabetic Retinopathy
- 5. Diabetic Neuropathy
- 6. Diabetic Nephropathy
- 7. Periodontal Disease
- 8. Erectile Dysfunction
- 9. Diabetic Dermatopathy
- 10. Diabetic Foot





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# Module 3. Macrovascular complications of diabetes and other medical entities.

- 1. Epidemiology of Macrovascular Disease in Diabetes.
- 2. Epidemiology of Hypertension and Dyslipidemia in Diabetes.
- 3. Diabetes and Heart
- 4. Cerebrovascular Disease in Diabetes
- 5. Peripheral Arterial Disease
- 6. Effects of Glycemic Control on Cardiovascular Events in Patients with Diabetes
- 7. Diabetes and Hepatic Steatosis/Steatohepatitis
- 8. Diabetes and Lung Disease
- 9. Diabetes and Cancer
- 10. Diabetes and Depression







# tech 26 | Methodology

#### At TECH we use the Case Method

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

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



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



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

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

- 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.



# Methodology | 29 tech

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.

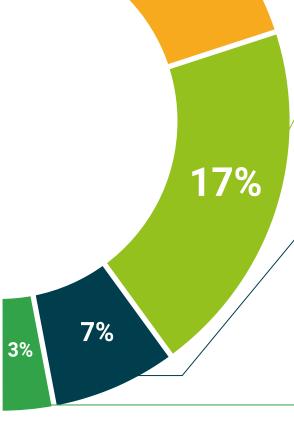
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.









# tech 34 | Certificate

This program will allow you to obtain your **Postgraduate Diploma in Diabetes Complications** 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 Diploma in Diabetes Complications

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



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

#### Postgraduate Diploma in Diabetes Complications

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



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



# Postgraduate Diploma Diabetes Complications

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 18 ECTS

» Schedule: at your own pace

» Exams: online

