

Professional Master's Degree Diabetes





Professional Master's Degree Diabetes

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/professional-master-degree/master-diabetes

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 18

04

Course Management

p. 22

05

Structure and Content

p. 30

06

Methodology

p. 36

07

Certificate

p. 44

01

Introduction

This refresher program offers high-level training in Diabetes, taught by professionals with extensive experience in the sector. This program will enable medical professionals to specialize in this chronic disease that affects all ages and requires very complex treatment and control at any level of care.

A unique opportunity to become a renowned physician specializing in this widespread disease, with the help of practising experts.





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This program is the best option you can find to specialize in Diabetes"

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

This Professional Master's Degree in Diabetes 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 Professional Master's Degree delves into the complex pathophysiology of the disease; in the integral evaluation of its acute and chronic complications, from a specialized point of view, and in its integral treatment.

Its content deals with the most innovative aspects of diabetes, such as the application of technology for the control and treatment of this disease, and the most innovative areas in the research of new therapeutic targets. It also includes in its teaching staff one of the most prominent international figures in the field of Diabetes, as member of the historic DCCT clinical study of 1993 that allowed great advances in glucose control and care for patients with type 1 Diabetes. This professor has conducted a series of masterclasses in which the most incipient developments in Diabetes have been thoroughly and exhaustively studied.

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 the diabetic's life that require specific knowledge to be addressed.

This **Professional Master's Degree in Diabetes** contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- ♦ 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 assignments
- ♦ Content that is accessible from any fixed or portable device with an internet connection



Access to 10 masterclasses given by one of the most referenced and prestigious figures in the field of Diabetes, with a distinctive deepening in the subject".

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This Professional Master's Degree may be the best investment you can make when selecting a refresher programme for two reasons: in addition to updating your knowledge in Diabetes, you will obtain a degree from TECH Technological University".

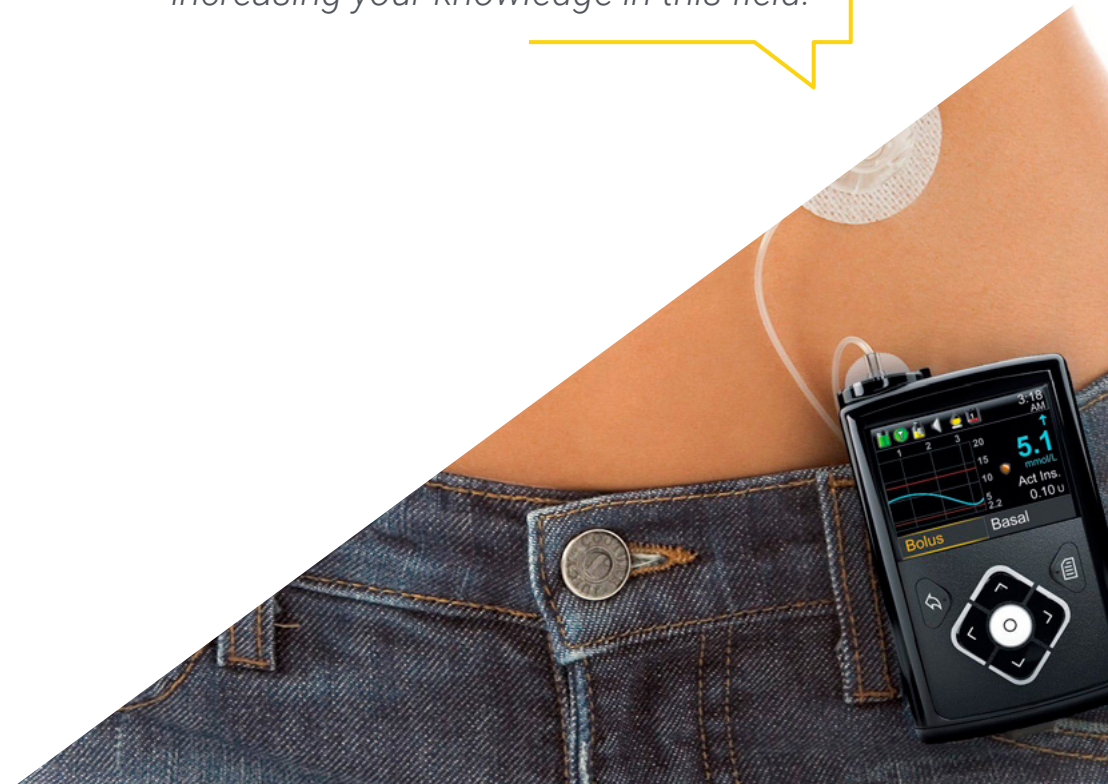
The teaching staff includes professionals from the field of Diabetes, who bring their experience to this specialization program, as well as renowned specialists from leading societies and prestigious universities.

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.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. 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 Professional Master's Degree will allow you to balance your studies with your professional work while increasing your knowledge in this field.



02 Objectives

The Professional Master's Degree in Dementia 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 Diabetes”.



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.
- ♦ Deepen the understanding of the complex mechanisms of glycemia regulation; and improve the knowledge of the bases of the physiopathogenesis of type 1 and type 2 diabetes, in order to understand the existing therapeutic approaches and its prevention.
- ♦ Acquire the knowledge and skills necessary for a comprehensive assessment of the person with diabetes, with special reference to acute complications of glycemic control
- ♦ Acquire the knowledge and skills necessary to deepen the chronic complications of diabetes, in order to acquire an adequate management of them
- ♦ Know the chronic macrovascular complications related to Diabetes, since they are the main cause of mortality in patients with Diabetes.
- ♦ Expand knowledge of the skills necessary for the global treatment (nutritional, exercise, healthy habits and therapeutic measures) of the patient with Diabetes.
- ♦ Acquire the necessary knowledge about the pharmacological treatment of type 2 diabetes in order to be able to prescribe the best pharmacological strategy for each patient with type 2 diabetes according to their comorbidities.
- ♦ Acquire the knowledge and skills necessary to be able to handle the different blood glucose monitoring devices, as well as insulin injection devices (continuous insulin perfusion pumps) and to be able to interpret the data resulting from these devices.
- ♦ Attain the knowledge and skills necessary to expertly deal with the treatment of patients with diabetes in special situations such as the elderly, institutionalized, hospitalized, during travel, and in the rural world and at work
- ♦ Acquire the necessary knowledge and skills of diabetes education, as part of the treatment of diabetes, to facilitate the knowledge, skill and ability necessary for self-management.





Specific Objectives

Module 1. The Concept of Diabetes. Epidemiology

- ♦ Expand 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 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 *screening* techniques.
- ♦ Incorporate the concept of public health in Diabetes.

Module 2. Pathophysiology of Diabetes

- ♦ Deepen the basic knowledge of glucose homeostasis.
- ♦ Analyze the etiopathogenic mechanisms of type 1 diabetes.
- ♦ Know what insulinitis is and how it occurs in type 1 diabetes.
- ♦ Deepen in the etiopathogenic mechanisms of type 2 diabetes that will serve as therapeutic targets for the same
- ♦ Understand the essential role of adipose tissue and its excess (obesity) in the genesis of type 2 diabetes.
- ♦ Acquire the knowledge and skills of insulin resistance measurement.
- ♦ Studying the mediating role of inflammation between obesity and diabetes.

- ◆ Know the alterations in the regulation of gastrointestinal hormones in type 2 diabetes and what is the incretin effect.
- ◆ Learn about a new avenue of research in the field of diabetes etiopathogenesis: Intestinal microbiota.
- ◆ Delve into new mechanisms involved in type 2 diabetes, such as the role of the central nervous system as an organ regulating body weight.
- ◆ Learn what is the natural history of type 2 diabetes.
- ◆ Knowing how to prevent or delay the development of type 1 and type 2 diabetes, by acting on the etiopathogenic mechanisms involved.

Module 3. Evaluation of diabetes and its comorbidities.

- ◆ Study in depth the concept of comprehensive assessment of diabetes in order to have a global vision of the patient with diabetes.
- ◆ Acquire the necessary knowledge to transmit to the patient the priorities in the therapeutic approach.
- ◆ Acquire the skills to know the patient's preferences, social, economic and cultural environment and expectations in the treatment of Diabetes.
- ◆ Know the importance of glycemic control
- ◆ Learn glycemic control mediation techniques and individualized targets for each patient.
- ◆ Acquire a mastery of hypoglycemia, both from the pathophysiological point of view, as well as detection, prevention and treatment.
- ◆ Knowing the consequences of hypoglycemia on the patient
- ◆ Differentiate acute hyperglycemic complications for their correct therapeutic approach.
- ◆ Learn to detect precipitating factors of acute hyperglycemic complications.



- ♦ Acquire the knowledge and skills for the assessment of cardiovascular risk in the diabetic patient.
- ♦ Learning how to screen for cardiovascular risk factors
- ♦ Identify other endocrinological entities with diabetes.
- ♦ Acquire knowledge and skills to assess the social and psychological aspects of diabetes.

Module 4. 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 5. 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.

Module 6. Diabetes Management (I)

- ♦ Specialize in the integral treatment of Diabetes
- ♦ Learning the global management of obesity in the diabetic patient.
- ♦ Know the pharmacological alternatives for the treatment of obesity in patients with diabetes.
- ♦ Learn what metabolic surgery is, its indications in diabetic patients and its results.
- ♦ Know the most indicated antihypertensive treatments for diabetic patients and their prescription.
- ♦ Learn the management of diabetic dyslipidemia, know the indications for its treatment and the drugs available.
- ♦ Learn how to prescribe a nutritional plan adapted to each person with type 1 or type 2 diabetes.
- ♦ Acquire the knowledge to prescribe a structured exercise program for the patient with Diabetes.
- ♦ Know the different insulin treatment guidelines for patients with type 1 diabetes.
- ♦ Learn to interpret glycemic control results according to individualized treatment guidelines.

- ♦ Become familiar with more complex therapeutic strategies for patients with type 1 diabetes such as islet or pancreas transplantation.
- ♦ Acquire a critical view of the recommendations of expert consensus and scientific society guidelines for the management of type 2 diabetes.

Module 7. Therapeutic Management of Diabetes (II)

- ♦ Acquire knowledge of each of the families of antidiabetic drugs.
- ♦ Acquire the knowledge and skills necessary to be able to safely prescribe metformin
- ♦ Acquire the knowledge and skills necessary to safely prescribe sulfonylureas and glinides.
- ♦ Acquire the knowledge and skills necessary to be able to safely prescribe acarbose
- ♦ Acquire the knowledge and skills necessary to safely prescribe DPP4 inhibitors.
- ♦ Acquire the knowledge and skills necessary to be able to safely prescribe GLP-1 analogues.
- ♦ Acquire the knowledge and skills necessary to safely prescribe type 2 sodium-glucose cotransporter inhibitors.
- ♦ Acquire the knowledge and skills necessary to safely prescribe insulins.
- ♦ Familiarization with new therapeutic targets in development, as a very novel aspect of this module.
- ♦ Acquire the knowledge and skills necessary for the management of steroid-induced hyperglycemia.
- ♦ Acquire the knowledge and skills necessary for the nutritional approach to gestational diabetes.
- ♦ Acquire the knowledge and skills necessary for the pharmacological management of gestational diabetes.



Module 8. Diabetes and Technology

- ♦ Acquire the knowledge of the use of technology in Diabetes.
- ♦ Know what self-monitoring of capillary blood glucose means and its interpretation in order to be able to manage patient data and to be optimize diabetes control
- ♦ Learn about continuous glucose monitoring
- ♦ Know the available glucose monitoring devices and their use.
- ♦ Acquire the skills to be able to conduct a training program on glucose sensing.
- ♦ Acquire the knowledge and skills necessary for the interpretation of the results of continuous glucose monitoring systems.
- ♦ Learning to read an APG report
- ♦ Know the subcutaneous insulin injection devices, their handling and related problems in order to be able to solve them in the diabetic patient who is a user of these devices.
- ♦ Acquire the necessary knowledge for the handling of continuous glucose monitoring devices and insulin perfusion pumps in infancy.
- ♦ Acquire the necessary knowledge for the use of continuous glucose monitoring devices and insulin perfusion pumps in pregnancy.
- ♦ Acquire the basic knowledge of what an artificial pancreas is, what types there are and what they provide to patients with type 1 diabetes.
- ♦ Know the mobile internet applications available for the diabetic patient.
- ♦ Learn to recognize the usefulness of information obtained through artificial intelligence data analysis in the field of Diabetes.
- ♦ Learning to apply technology in new forms of medical care for diabetic patients (e-consultation, telemedicine, online educational programs, etc.).

Module 9. Diabetes in Special Situations

- ♦ Acquire the knowledge and skills for the expert management of the adolescent diabetes patient.
- ♦ Acquire the knowledge and skills to provide guidance in the management of diabetes at the time of initiation of sexual relations
- ♦ Acquire the knowledge and skills to guide the patient with Diabetes who consumes alcohol. Learn the repercussions of alcohol on glucose metabolism in order to be able to warn and educate patients with diabetes
- ♦ Know how gender influences the control of diabetes from an integral point of view (glycemic control, risk factors and associated comorbidities).
- ♦ Know how the estrogenic deficit that occurs during menopause influences Diabetes control and how to prevent it.
- ♦ Learning to identify the frail elderly, through screening tests.
- ♦ Acquire the knowledge and skills to reprogram the pharmacological approach to the frail elderly patient with polypharmacy and comorbidities.
- ♦ Acquire the knowledge and skills to detect these unfavorable socioeconomic situations in order and program patient management.
- ♦ Know the legal aspects of the patient with Diabetes, since they condition their life and, therefore, the control of diabetes

Module 10. Diabetic Education. Concept and Fundamentals

- ♦ Acquire the necessary knowledge and skills of diabetes education, as part of the treatment of diabetes, to facilitate the knowledge, skill and ability necessary for self-management.





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This training will provide you with a sense of confidence in medical practice, which will help you grow personally and professionally”

03 Skills

After passing the assessments on the program, the professional will have acquired the necessary skills for quality up-to-date practice based on the most innovative teaching methodology.



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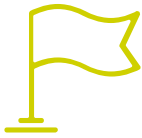
*This program will help you
acquire the skills you need
to excel in providing quality
patient care"*



General Skills

- Perform appropriate management of patients with diabetes at any level of care.
- Develop the necessary skills to become a professional in care, therapeutic education and research tasks in an ethical and independent manner, in specialized hospital care, primary care, home care or in universities or research centers
- Achieving excellence in health care services and multidisciplinary management of patients with diabetes





Specific Skills

- ◆ Know the classification of diabetes and the wide spectrum of etiologies that lead to its development.
- ◆ Incorporate the concept of public health in Diabetes.
- ◆ Acquire the knowledge and skills of insulin resistance measurement.
- ◆ Studying the mediating role of inflammation between obesity and diabetes.
- ◆ Acquire the necessary knowledge to transmit to the patient the priorities in the therapeutic approach.
- ◆ Acquire the skills to know the patient's preferences, social, economic and cultural environment and expectations in the treatment of Diabetes.
- ◆ 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
- ◆ Know when and how screening for DN should be performed in the diabetic population.
- ◆ Learn the specific treatments for ND
- ◆ Deepen the current data on the Epidemiology of hypertension in diabetes.
- ◆ Acquire the knowledge and skills necessary for the screening of mood disorders, especially depression in diabetic patients.
- ◆ Become familiar with more complex therapeutic strategies for patients with type 1 diabetes such as islet or pancreas transplantation.
- ◆ Acquire a critical view of the recommendations of expert consensus and scientific society guidelines for the management of type 2 diabetes.
- ◆ Acquire knowledge of each of the families of antidiabetic drugs.
- ◆ Acquire the knowledge and skills necessary for the nutritional approach to gestational diabetes.
- ◆ Acquire the knowledge and skills necessary for the pharmacological management of gestational diabetes.
- ◆ Learn to recognize the usefulness of information obtained through artificial intelligence data analysis in the field of Diabetes.
- ◆ Learn how to apply technology in new forms of medical care (e-consultation, telemedicine, online educational programs, etc.) to the diabetic patient.
- ◆ Know how gender influences the control of diabetes from an integral point of view (glycemic control, risk factors and associated comorbidities).
- ◆ Acquire the necessary knowledge and skills of diabetes education, as part of the treatment of diabetes, to facilitate the knowledge, skill and ability necessary for self-management.

04

Course Management

The teaching staff, composed of renowned members of the scientific and clinical community of diabetes, includes one of the most prominent international figures in this field. Their extensive clinical experience is a guarantee for the quality of the entire syllabus, which delves into the most relevant scientific news in Diabetes to bring the clinical practice of the specialist to the most rigorous and up-to-date level.





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

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 Joslin Diabetes Center Lipid Clinic, 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. Brox Torrecilla, Noemi

- ♦ Specialist in Endocrinology and Diabetes at the Gregorio Marañón University Hospital in Madrid
- ♦ Researcher at the Gregorio Marañón Health Research Institute.
- ♦ Graduate in Medicine from the University of Castilla-La Mancha.



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. 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.

Dr. Sánchez González, María

- Independent Nutritionist
- Nutritionist at Rowing Club in Alicante
- Nutritionist at Alex Camarada Sports Center, Alicante
- Nutritionist at Melody Garcia Nutrition, Benidorm
- Graduate in Human Nutrition and Dietetics from the University of Valladolid
- Master in Sports Nutrition by the Catholic University San Antonio of Murcia.
- Member of the Health Commission of the CODiNuCova College.

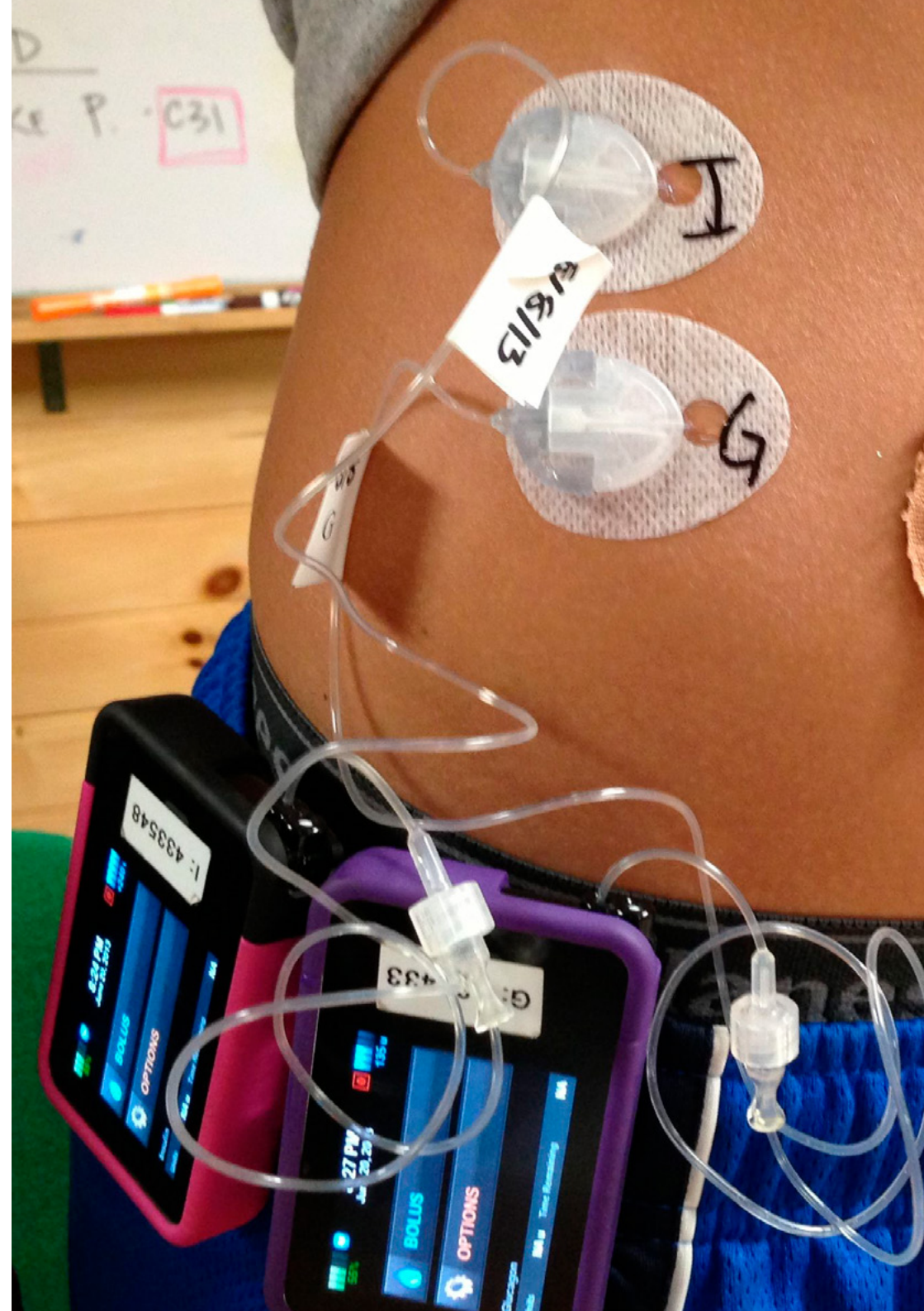
Dr. Rivas Montenegro, Alejandra Maricel

- 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. 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. 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 Alcalá
- ♦ 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. Aranbarri Osoro, Igotz

- ♦ Online Consultant on Family Medicine and Diabetes
- ♦ Medical Coordinator at Patia
- ♦ Specialist in Family and Community Medicine in Osakidetza
- ♦ Family Physician in Zalaieta Medikuzentroa
- ♦ Master in Education and Care of People with Diabetes by the University of Barcelona
- ♦ Master's Degree in Education and Care of People with Type 2 Diabetes, Francisco de Vitoria University.
- ♦ University Expert in Diabetes Type 2 by the Miguel Hernández University of Elche.

05

Structure and Content

The structure of the content has been designed by leading Diabetes experts, 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 teaching.





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This Professional Master's Degree contains the most complete and up-to-date scientific program on the market”

Module 1. The Concept of Diabetes. Epidemiology

- 1.1. Diabetes Historical Recollection
- 1.2. Classification of Diabetes and Other Categories of Glucose Intolerance
- 1.3. Gestational Diabetes
- 1.4. Diabetes and Genetic Syndromes
- 1.5. Diabetes and Exocrine Pancreatic Diseases
- 1.6. Pharmacological Diabetes
- 1.7. Epidemiology of Type 1 Diabetes
- 1.8. Epidemiology of Type 2 Diabetes
- 1.9. Type 2 Diabetes and Prediabetes *Screening*
- 1.10. Diabetes and Population Health

Module 2. Pathophysiology of Diabetes

- 2.1. Normal Anatomy and Physiology of Pancreatic Function. Glucose Homeostasis
- 2.2. Pathogenesis of Type 1 Diabetes
- 2.3. Pathogenesis of Type 2 Diabetes. Overview
- 2.4. Role of Adipose Tissue in Type 2 Diabetes. Concept of Insulin Resistance
- 2.5. Implications of Intestinal Hormones in the Pathophysiology of Diabetes: Incretin System. Intestinal Microbiota
- 2.6. Implications of the Kidney in the Pathophysiology of Diabetes
- 2.7. The Central Nervous System and the Pathophysiology of Diabetes
- 2.8. Diabetes and Genetics
- 2.9. Diabetes and Delay or Prevention of DM1
- 2.10. Diabetes and Delay or Prevention of DM2



Module 3. Evaluation of diabetes and its comorbidities.

- 3.1. Patient-Centered. Facilitating Behavioral Change in Patients with Diabetes
- 3.2. Glycemic Control Objectives
- 3.3. Hypoglycemia
- 3.4. Diabetes and Hyperglycemic Decompensations: CAD
- 3.5. Diabetes and Hyperosmolar Hyperglycemic Decompensation
- 3.6. Diabetes and Infections
- 3.7. Cardiovascular Risk Assessment in Diabetic Patients
- 3.8. Diabetes and Endocrine Diseases
- 3.9. Psychological and Social Aspects of Diabetes

Module 4. Diabetes Complications. Classification

- 4.1. Classification of Diabetes Complications and their Impact on the Person with Diabetes
- 4.2. Pathophysiology of Microvascular Complications
- 4.3. Pathophysiology of Macrovascular Complications
- 4.4. Diabetic Retinopathy
- 4.5. Diabetic Neuropathy
- 4.6. Diabetic Nephropathy
- 4.7. Periodontal Disease
- 4.8. Erectile Dysfunction
- 4.9. Diabetic Dermatopathy
- 4.10. Diabetic Foot

Module 5. Macrovascular Complications of Diabetes and Other Medical Conditions

- 5.1. Epidemiology of Macrovascular Disease in Diabetes.
- 5.2. Epidemiology of Hypertension and Dyslipidemia in Diabetes.
- 5.3. Diabetes and Heart
- 5.4. Cerebrovascular Disease in Diabetes
- 5.5. Peripheral Arterial Disease
- 5.6. Effects of Glycemic Control on Cardiovascular Events in Patients
with Diabetes
- 5.7. Diabetes and Hepatic Steatosis/Steatohepatitis
- 5.8. Diabetes and Lung Disease
- 5.9. Diabetes and Cancer
- 5.10. Diabetes and Depression

Module 6. Diabetes Management (I)

- 6.1. Introduction to Comprehensive Diabetes Management
- 6.2. Management of Obesity in Diabetes and Prediabetes. Metabolic Surgery for Diabetes Treatment
- 6.3. Treatment of Risk Factors: Hypertension in Diabetes, Dyslipidemia
- 6.4. Treatment of Risk Factors: Tobacco Use
- 6.5. Nutrition in Type 1 Diabetes
- 6.6. Nutrition in Type 2 Diabetes
- 6.7. Exercise as Part of Diabetes Treatment
- 6.8. Conventional" Treatment of Type 1 Diabetes
- 6.9. "Non-Conventional" Treatment of Type 1 Diabetes. Pancreatic Islet Transplantation, Pancreas Transplantation
- 6.10. National and International Guidelines and Consensus on the Management of Type 2 Diabetes



Module 7. Therapeutic Management of Diabetes (II)

- 7.1. Metformina
- 7.2. Sulfonylureas and Glinides
- 7.3. Acarbose and Thiazolidines
- 7.4. Glycosurics
- 7.5. DPP4 Enzyme Inhibitors
- 7.6. GLP-1 Receptor Agonists
- 7.7. Recap. Prandial Insulins. Basal Insulins
- 7.8. New Treatments in Research
- 7.9. Steroid Diabetes Treatment
- 7.10. Treatment of Gestational Diabetes

Module 8. Diabetes and Technology

- 8.1. Overview of the Use of Technology in Diabetes
- 8.2. Capillary Glycemia Self-Monitoring
- 8.3. Continuous Glucose Monitoring. Glucose Sensors
- 8.4. Insulin and Injection Devices. Insulin Pumps
- 8.5. Artificial Pancreas
- 8.6. Use of Technology in Diabetes in Pregnancy
- 8.7. Use of Technology in Diabetes in Infancy
- 8.8. Diabetes y Big Data
- 8.9. Diabetes and Internet (Web, Apps, etc.)
- 8.10. New Ways to Care for the Diabetes Patient

Module 9. Diabetes in Special Situations

- 9.1. Diabetes in Childhood and Adolescence
- 9.2. Diabetes, Alcohol and Sexual Relationships
- 9.3. Diabetes in Women
- 9.4. Diabetes in the Elderly and in the Institutionalized Patient
- 9.5. Diabetes and Sports
- 9.6. Diabetes in the Hospitalized Patient
- 9.7. Diabetes and Travel
- 9.8. Diabetes and Work Life/Rural
- 9.9. Socioeconomic Aspects of Diabetes
- 9.10. Legal Aspects of Diabetes

Module 10. Diabetological Education. Concept and Fundamentals

- 10.1. Diabetic Education. Concept. Assessment of the Educational Needs of the Person with Diabetes
- 10.2. Diabetology Education Training Programs
- 10.3. Education and Competencies in People with Type 1 Diabetes
- 10.4. Education and Competencies in People at Risk of Type 2 Diabetes or with Type 2 Diabetes
- 10.5. Therapeutic Education of the Child and Adolescent, their Parents or Caregivers
- 10.6. Therapeutic Education for the Detection of Foot Risk in People with Diabetes
- 10.7. Impact of the "Expert Patient" Program on Diabetology Education
- 10.8. Impact of Patients' Associations
- 10.9. Ethical Aspects in Diabetes Education
- 10.10. Challenges in Chronic Monitoring. Barriers to Adherence and Therapeutic Inertia

06

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

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

At TECH we use the Case Method

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

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



According to Dr. Gervas, 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.

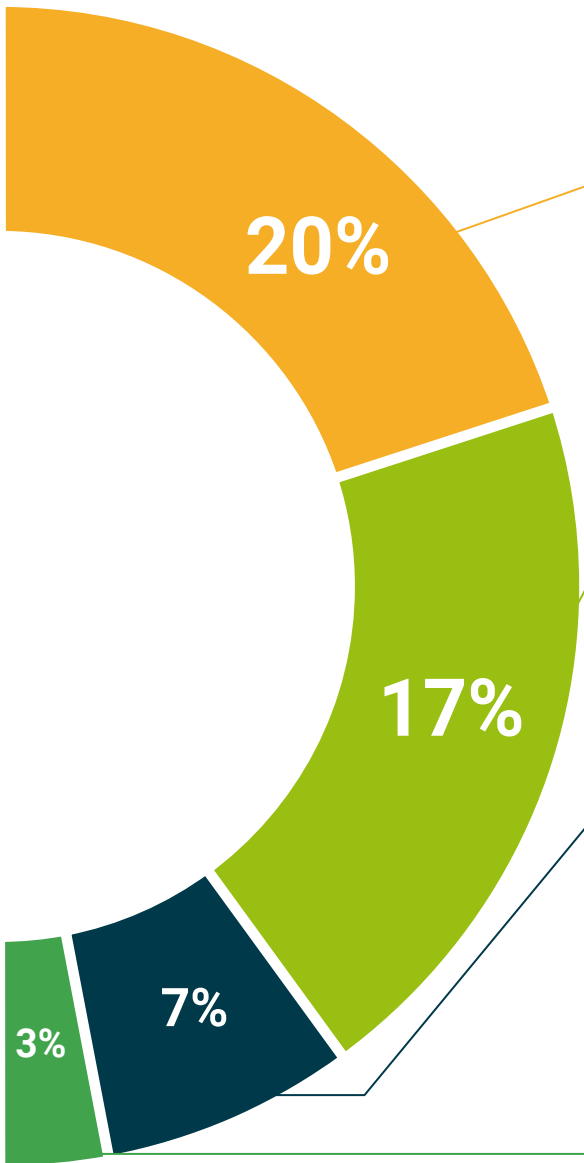
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.



07 Certificate

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



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

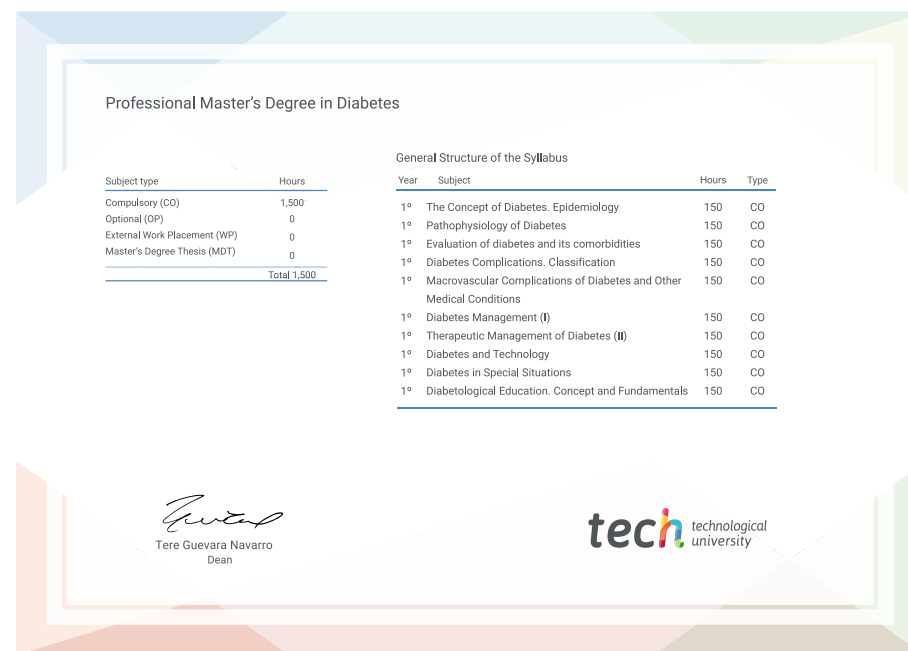
This **Professional Master's Degree in Diabetes** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Master's Degree in Diabetes**

Official No. of Hours: **1,500 hours**.



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

future

health

confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service information

knowledge present quality

online learning

development languages

virtual classroom

tech technological
university

Professional Master's Degree Diabetes

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Professional Master's Degree

Diabetes

