

Postgraduate Certificate

Nutrigenetics: Nutrition Related Diseases



Postgraduate Certificate Nutrigenetics: Nutrition Related Diseases

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

Website: www.techitute.com/us/medicine/postgraduate-certificate/nutrigenetics-nutrition-related-diseases

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01

Introduction

Hypertension or Atherosclerosis are some examples of pathologies that can be caused by poor nutrition. In this sense, Nutrigenetics is an excellent tool for their prevention in those people with a DNA predisposition to contract them by adapting their diet to their genetics. Due to the benefit offered to reduce the risk of suffering from various diseases, it is essential for doctors to have extensive skills in this discipline. For this reason, TECH has created this program with which, in an online mode, the student will identify the SNPs that indicate the development of pathologies such as Type II Diabetes or Hyperlipidemia in order to establish optimal preventive measures adapted to the patient's genes.





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Manage, with this program, the single nucleotide polymorphisms that predispose to the development of pathologies such as Type II Diabetes or Atherosclerosis”

Bad eating habits and sedentary lifestyles, which have been widespread in today's society for several decades due to living and working conditions, are the cause of numerous diseases. Some, such as Hyperlipidemia, Hypertension or Type II Diabetes, are caused by an incorrect diet, favoring their adoption in people who have a high genetic predisposition to suffer from them. In this context, it is becoming more and more common in the field of medicine to draw up nutritional plans based on the genetic characteristics of each person to optimize the prevention of these pathologies. Therefore, physicians must be highly skilled in this field of Nutrigenetics to preserve the health of their patients.

For this reason, TECH has designed this academic program, through which the student will significantly increase their knowledge in nutrition-related diseases, delving into the genetic factors that favor their development in order to anticipate them through a diet adapted to the DNA. Throughout this academic pathway, they will determine the SNPs that predispose to the development of complex nutrition-related diseases, or adopt the most effective strategies to minimize the risk of suffering from arteriosclerosis through appropriate nutritional plans. Additionally, the student will analyze the most updated studies in Nutrigenetics to face the future challenges of this discipline.

Since this program is taught through a 100% online methodology, students will be able to manage their own time to achieve effective learning. In the same way, they will have access to extensive and completely new didactic materials available in formats such as the explanatory video or the interactive summary, giving them the ability to tailor their teaching to their own academic needs.

This **Postgraduate Certificate in Nutrigenetics: Nutrition Related Diseases** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Nutritional Genomics and Precision Nutrition
- ◆ 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
- ◆ Practical exercises where the process of self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ 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



Design dietary plans adapted to the genetic particularities of each patient to prevent diseases such as hyperlipidemia or hypertension"

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Access didactic content in formats such as video or evaluative tests to make your learning an enjoyable and effective experience”

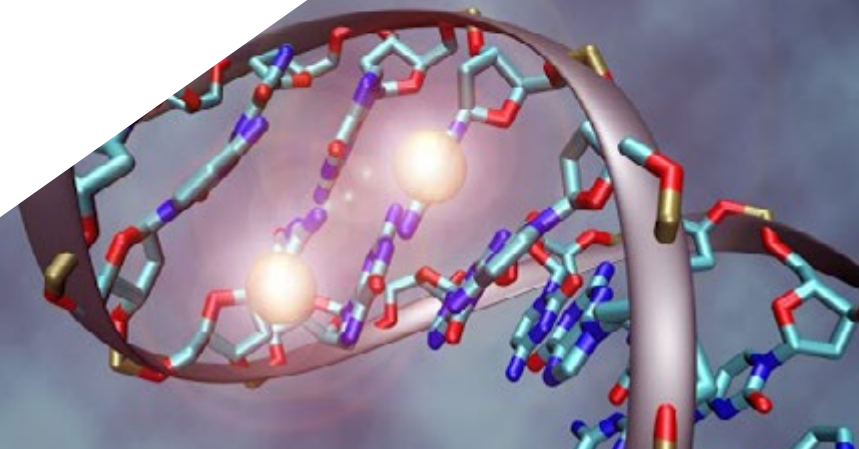
With this Postgraduate Certificate, you will analyze the current studies in the field of Nutrigenetics to be able to successfully face the future challenges of this discipline.

Compatibilize your learning with your personal and professional obligations through the study facilities that TECH puts at your disposal.

The program's teaching staff includes professionals from the sector who bring the experience of their work to this training, as well as recognized specialists from reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.



02 Objectives

The design of this Postgraduate Certificate has been made with the main intention of providing the physician with the necessary tools to increase their knowledge in the field of Nutrigenetics, with special emphasis on the pathologies that are closely related to nutrition. In this way, it will delve into the genetic and nutritional factors that lead to the development of different diseases, therefore acquiring a series of first level professional skills, which will be covered by the following general and specific objectives.



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Increase significantly your knowledge in Nutrigenetics in order to improve your daily medical practice and place you at the forefront of your field"



General Objectives

- ◆ Acquire theoretical knowledge of human population genetics
- ◆ Acquire knowledge of Nutritional Genomics and Precision Nutrition to be able to apply it in clinical practice
- ◆ Learn about the trajectory of this innovative field and the key studies that contributed to its development
- ◆ Know in which pathologies and conditions of human life Nutritional Genomics and Precision Nutrition can be applied
- ◆ Be able to assess individual response to nutrition and dietary patterns in order to promote health and prevent disease
- ◆ Understand how nutrition influences gene expression in humans
- ◆ Learn about new concepts and future trends in the field of Nutritional Genomics and Precision Nutrition
- ◆ Adapt personalized dietary and lifestyle habits according to genetic polymorphisms
- ◆ Provide health professionals with all the updated knowledge in the field of Nutritional Genomics and Precision Nutrition to know how to apply in their professional activity
- ◆ Put all the updated knowledge in perspective. Where we are now and where we are headed so that the student can appreciate the ethical, economic and scientific implications in the field





Specific Objectives

- ◆ Present the Key Polymorphisms to date related to Complex Diseases that depend on Nutritional Habits
- ◆ Introduce new leading concepts in Nutrigenetics research
- ◆ Delve into the development of hypertension due to poor nutrition
- ◆ Establish a nutritional plan to address Arteriosclerosis



In only 180 hours and with only a device with an Internet connection, you will have the opportunity to take this academic program"

03

Course Management

With the aim of providing the highest quality to all its programs, this TECH program is directed and taught by experts with extensive experience in the field of Nutritional Genomics, with special knowledge in the area of food analysis. These specialists are the ones in charge of the completions of the didactic resources that the student will have throughout this academic period, so all the contents that they will offer will be of great applicability in their professional life.



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This Postgraduate Certificate is taught by experts in Nutritional Genomics and Precision Nutrition, who will provide you with the most updated didactic contents in this area"

International Guest Director

Dr. Caroline Stokes is a specialist in **Psychology** and **Nutrition**, with a doctorate and a habilitation in **Medical Nutrition**. After a distinguished career in this field, she leads the **Food and Health Research** group at the Humboldt University of Berlin. This team collaborates with the Department of Molecular Toxicology at the German Institute of Human Nutrition Potsdam-Rehbrücke. Previously, he has worked at the Medical School of Saarland University in Germany, the Cambridge Medical Research Council and the UK National Health Service.

One of her goals is to discover more about the fundamental role that **Nutrition** plays in improving the overall health of the population. To this end, he has focused on elucidating the effects of fat-soluble vitamins such as **A, D, E and K**, the **amino acid methionine**, lipids such as **omega-3 fatty acids** and **probiotics** for both the prevention and treatment of diseases, particularly those related to hepatology, neuropsychiatry and aging.

Her other lines of research have focused on plant-based diets for the prevention and treatment of diseases, including liver and psychiatric diseases. He has also studied the spectrum of **vitamin D** metabolites in health and disease. She has also participated in projects to analyze new sources of vitamin D in plants and to compare the **luminal** and **mucosal microbiome**.

In addition, Dr. Caroline Stokes has published a long list of scientific papers. Some of her areas of expertise are **Weight Loss, Microbiota** and **Probiotics**, among others. The outstanding results of her research and her constant commitment to her work have led her to win the **National Health Service Journal Award for the Nutrition and Mental Health Program** in the UK.



Dr. Stokes, Caroline

- ♦ Head of the Food and Health Research Group at the Humboldt University of Berlin, Germany
- ♦ Researcher at the German Institute of Human Nutrition Potsdam-Rehbruecke
- ♦ Professor of Food and Health at the Humboldt University of Berlin
- ♦ Scientist in Clinical Nutrition at the University of Saarland
- ♦ Nutrition Consultant at Pfizer
- ♦ PhD in Nutrition at the University of Saarland
- ♦ Postgraduate Diploma in Dietetics at King's College London, University of London
- ♦ Master's Degree in Human Nutrition from the University of Sheffield

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

Management



Dr. Konstantinidou, Valentini

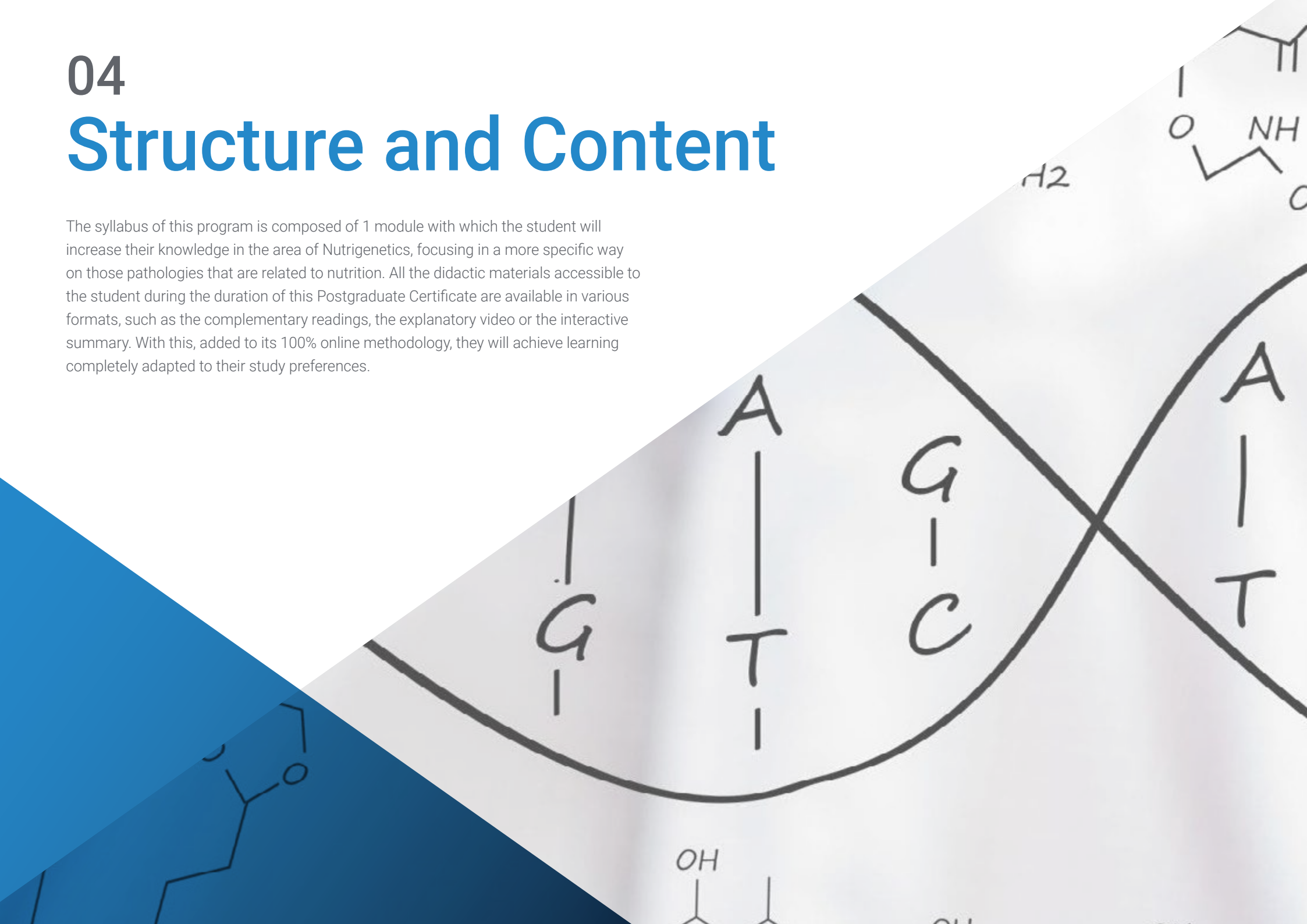
- ♦ Dietitian-Nutritionist Specialist in Nutrigenetics and Nutrigenomics
- ♦ Founder of DNANutricoach
- ♦ Creator of the Food Coaching method to change eating habits
- ♦ Professor in Nutrigenetics
- ♦ Doctorate in Biomedicine
- ♦ Dietitian- Nutritionist
- ♦ Food Technologist
- ♦ Accredited Life Coach of the British body IPAC&M
- ♦ Member of: American Society for Nutrition



04

Structure and Content

The syllabus of this program is composed of 1 module with which the student will increase their knowledge in the area of Nutrigenetics, focusing in a more specific way on those pathologies that are related to nutrition. All the didactic materials accessible to the student during the duration of this Postgraduate Certificate are available in various formats, such as the complementary readings, the explanatory video or the interactive summary. With this, added to its 100% online methodology, they will achieve learning completely adapted to their study preferences.



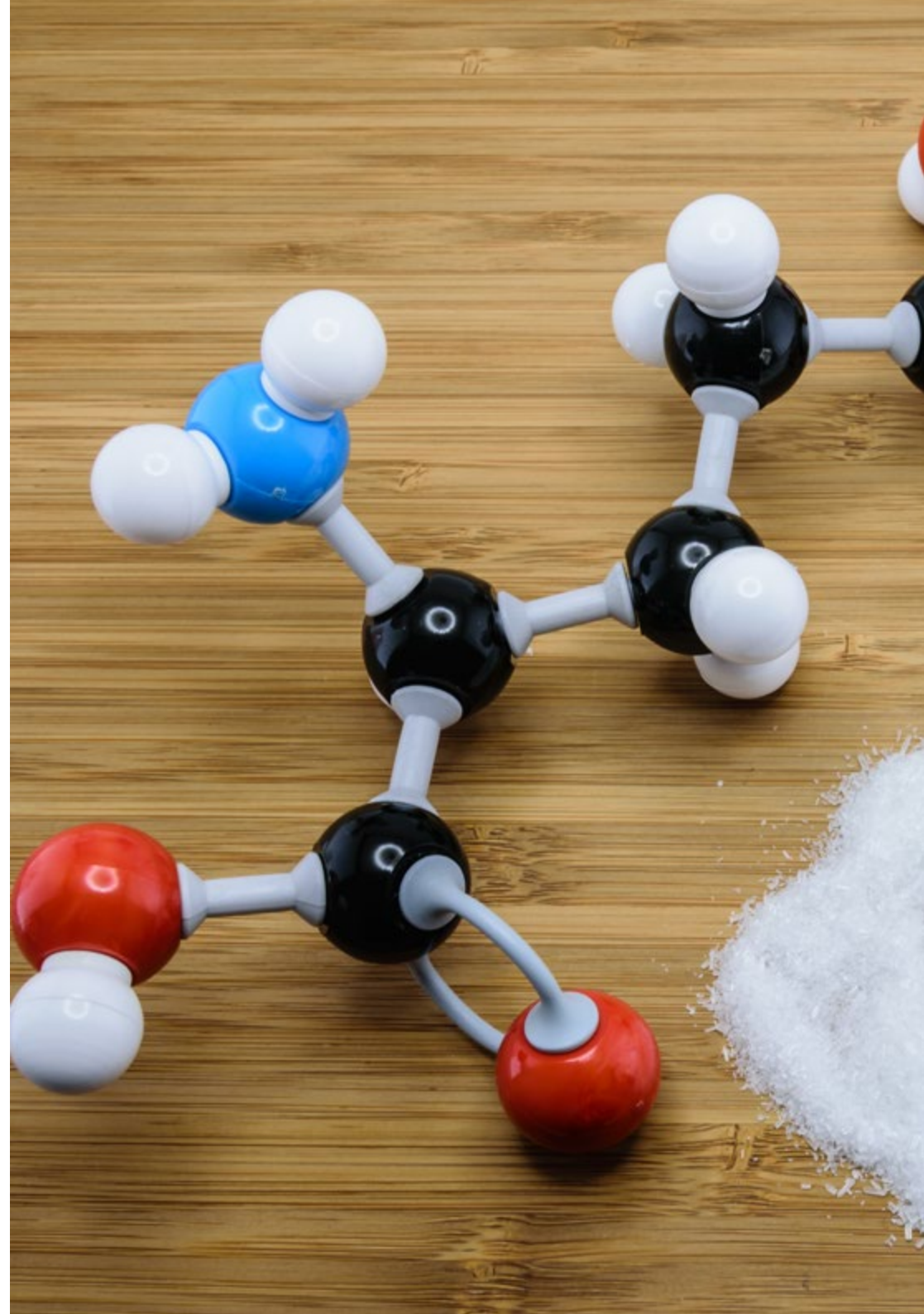


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Identify, through this program, the main SNPs that indicate a person's predisposition to nutrition-related diseases”

Module 1. Nutrigenetics III

- 1.1. SNPs Predisposing to Complex Nutrition-Related Diseases - Genetic Risk Scores (GRS)
- 1.2. Type II Diabetes
- 1.3. Hypertension
- 1.4. Arteriosclerosis
- 1.5. Hyperlipidemia
- 1.6. Cancer
- 1.7. The Exposome Concept
- 1.8. Metabolic Flexibility Concept
- 1.9. Current Studies- Challenges for the Future





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*Enjoy educational content
designed by subject matter experts
and accessible in a wide variety of
textual and interactive formats”*

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 Nutrigenetics: Nutrition Related Diseases 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 Nutrigenetics: Nutrition Related Diseases** 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 Nutrigenetics: Nutrition Related Diseases**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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Nutrigenetics: Nutrition
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