

Postgraduate Certificate Nutrigenetics for Nursing



Postgraduate Certificate Nutrigenetics for Nursing

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

Website: www.techtute.com/us/nursing/postgraduate-certificate/nutrigenetics-nursing

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01

Introduction

Nutrition is a complex process that can generate variations in the condition of individuals according to their genetics and metabolism. Therefore, it is necessary to have professionals specialized in nutrigenetics who are able to provide the best care to their patients. A training that will allow you to improve your daily practice with the help of the best teaching methodology.





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Nutrigenetics is a growing discipline that allows us to understand how genetics influences the metabolism of nutrients"

This Postgraduate Certificate details everything a health practitioner needs to know about Nutrigenetics. Thus, the material is organized in such a way as to advance knowledge without leaving doubts or gaps in information. It is the best training on the market, because it offers the opportunity to learn online all the innovation in the field of Nutritional Genomics.

In this way, students will be introduced to the fundamentals of nutrigenetics, the interaction between genetic variability and diet, and how population genetics is being applied in the field of nutrition.

It is a training with an extensive level of detail and focuses on the key studies, their importance and influence.

Among the highlights of this training is an introduction to the cutting-edge circadian control system, the central and peripheral clocks, and their influence on nutrition metabolism.

This Postgraduate Certificate provides students with specific tools and skills to successfully develop their practitioner activity related to Nutritional Genomics and Precision Nutrition.

As it is an online Postgraduate Certificate, the student is not conditioned by fixed schedules or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

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

- ♦ The development of case studies presented by experts in Genomic and Precision Nutrition
- ♦ The graphic, schematic, and eminently practical contents with which they are created contain information that is indispensable for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in Nutrigenetics
- ♦ Theoretical lessons, questions to for the experts, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



Get trained in the broad field of Nutritional Genomics and offer personalized care to your patients"

“ *This Postgraduate Certificate is the best investment you can make in selecting a refresher program to bring your knowledge of Nutrigenetics up to date*”

This program offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.

This 100% online course will allow you to combine your studies with your professional work while increasing your knowledge in this field.

Its teaching staff includes professionals belonging to the field of nutrition, who contribute their work experience to this training, as well as renowned specialists from reference societies and prestigious universities.

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

This program is designed around Problem Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the Professional will be assisted by an innovative Interactive Video System, developed by Renowned and Experienced Experts in Nutrigenetics.



02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the nursing practitioner can master the study of Nutritional Genomics and precision nutrition in a practical and rigorous way.



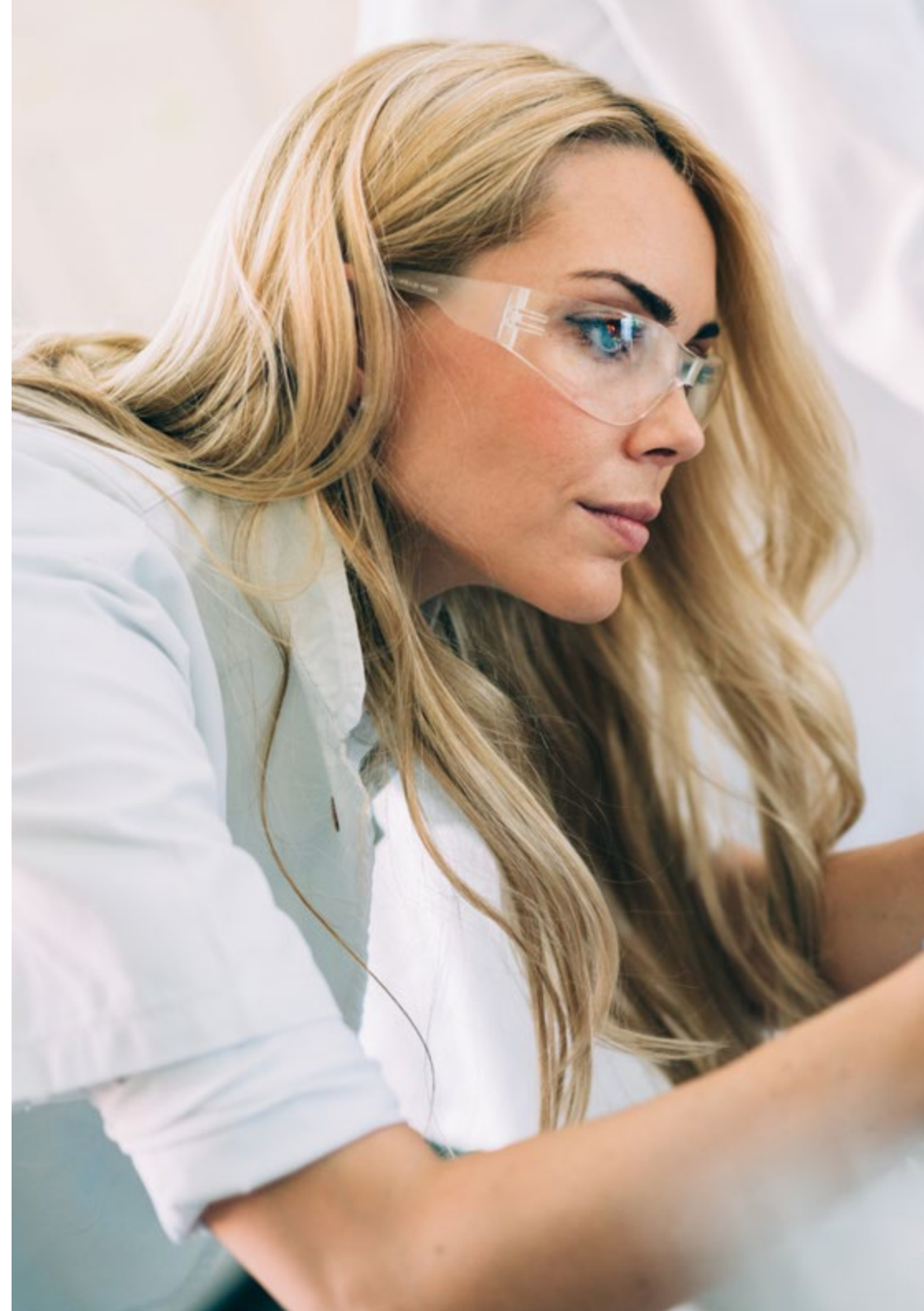
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This refresher program will provide you with a sense of confidence in your daily work, which will help you grow both personally and professionally”



General Objectives

- ◆ Acquire theoretical knowledge of human population genetics
- ◆ Acquire knowledge of genomic and precision nutrition to be able to apply it in practice
- ◆ Learn the development of this novel field and the key findings that contributed to its development
- ◆ Know in which pathologies and conditions of human life Genomic and Precision Nutrition can be applied
- ◆ To evaluate individual response to nutrition and dietary patterns in order to promote health and disease prevention
- ◆ Learn how nutrition influences gene expression in humans
- ◆ Learn about new concepts and future trends in the field of Genomic 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 Genomic and Precision Nutrition in order to know how to apply it in their professional activity
- ◆ Put all the up to date 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

- ◆ Acquire the latest knowledge on population genetics
- ◆ Understand how the basis for the interaction between Genetic Variability and Diet is generated
- ◆ Introducing the advanced Circadian Control System and Central and Peripheral Clocks

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*Take the step and join
one of the largest online
universities in the world”*

03

Course Management

The program's teaching staff includes leading Postgraduate Diplomas in Nutritional Genomics and Precision Nutrition, who bring the experience of their work to this training. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.



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Leading professionals in the field have come together to teach you the latest developments in Nutrigenetics”

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

- ◆ D. in Biomedicine
- ◆ Lecturer in Nutrigenetics
- ◆ Founder of DNANUTRICOACH®
- ◆ Dietitian-Nutritionist
- ◆ Food Technologist



04

Structure and Content

The structure of the contents has been designed by a team of professionals who recognise the implications that training has on daily practice, who are aware of the relevance of current training in Genomic and Precision nutrition, and are committed to quality teaching using new educational technologies.



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We have the most complete and up-to-date Scientific Program in the Market. We strive for the excellence that we want you to achieve too"

Module 1. Nutrigenetics.

- 1.1. Nutrigenetics Authorities and Organizations
 - 1.2.1. NUGO
 - 1.2.2. ISSN
 - 1.2.3. Evaluation Committees
- 1.2. GWAS I Studies
 - 1.2.1. Population Genetics - Design and Use
 - 1.2.2. Hardy-Weinberg Law
 - 1.2.3. Linkage Imbalance
- 1.3. GWAS II
 - 1.3.1. Allelic and Genotypic Frequencies
 - 1.3.2. Gene-Disease Association Studies.
 - 1.3.3. Association Models (Dominant, Recessive, Co-dominant)
 - 1.3.4. Genetic Scores
- 1.4. The Discovery of Nutrition-Related SNPs
 - 1.4.1. Key Studies-Design
 - 1.4.2. Main Results
- 1.5. The Discovery of SNPs Associated with Nutrition-Related Diseases (Diet-Depended)
 - 1.5.1. Cardiovascular Diseases.
 - 1.5.2. Diabetes Mellitus Type II
 - 1.5.3. Metabolic Syndrome
- 1.6. Main Obesity-Related GWAS
 - 1.6.1. Strengths and Weaknesses
 - 1.6.2. The FTO Example
- 1.7. Circadian Control of Intake.
 - 1.7.1. Gut-Brain Axis.
 - 1.7.2. Molecular and Neurological Basis of the Brain-Gut Connection
- 1.8. Chronobiology and Nutrition
 - 1.8.1. Central Clock
 - 1.8.2. Peripheral Clocks
 - 1.8.3. Circadian Rhythm Hormones
 - 1.8.4. Intake Control (Leptin and Ghrelin)
- 1.9. SNPs related to Circadian Rhythms
 - 1.9.1. Regulatory Mechanisms of Satiety
 - 1.9.2. Hormones and Intake Control
 - 1.9.3. Possible Pathways Involved



“A unique, key, and decisive training experience to boost your professional development”

05

Methodology

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

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





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

At TECH Nursing School we use the Case Method

In a given clinical situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 university program.



Re-learning Methodology

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

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.



The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success, in all specialities regardless of practical workload. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



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



Study Material

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

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



Nursing Techniques and Procedures on Video

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



Interactive Summaries

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

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



Additional Reading

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





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

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



Classes

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

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



Quick Action Guides

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



06

Certificate

Through a different and stimulating learning experience, you will be able to acquire the necessary skills to take a big step in your training. An opportunity to progress, with the support and monitoring of a modern and specialized university, which will propel you to another professional level.



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Include in your training a Postgraduate Certificate in Nutrigenetics for Nursing a highly valued addition for any practitioner in this area"

This program will allow you to obtain your **Postgraduate Certificate in Nutrigenetics for Nursing** 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 for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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