

Postgraduate Certificate

Laboratory Techniques for Nutritional Genomics in Nursing



Postgraduate Certificate Laboratory Techniques for Nutritional Genomics in 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/laboratory-techniques-nutritional-genomics-nursing

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01

Introduction

Nutritional Genomics is a growing discipline that requires specialized practitioners who are constantly staying up to date. On this occasion we present the best Postgraduate Certificate on the market in laboratory techniques for Nutritional Genomics. A specialization that will allow you to improve your daily practice with the help of the best teaching methodology.



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If you are in nursing, don't miss the opportunity to specialize in Nutritional Genomics with this specific Postgraduate Certificate on laboratory techniques in this field"

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

Specifically, during this Postgraduate Certificate the student will learn all the theory of laboratory techniques used in the field of Nutritional Genomics and precision nutrition. In this way, students will be introduced to the basics so that they can recognize and appreciate them once they are in the laboratory, as well as learn about the bioinformatics programs used in Nutritional Genomics.

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 Laboratory Techniques for Nutritional Genomics in 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 of the course are designed to provide all the essential information required for professional practice.
- ♦ Practical exercises where self-assessment can be used to improve learning.
- ♦ Its special emphasis on innovative methodologies in laboratory techniques for Nutritional Genomics
- ♦ 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

“Prepare yourself in the broad field of nutritional genomics and offer specialized treatments to your patients”

“ *This Postgraduate Certificate is the best investment you can make in selecting an Update program to bring your knowledge of laboratory techniques for Nutritional Genomics up to date*”

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.

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 immersive education 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 practitioner will be assisted by an innovative interactive video system created by renowned and experienced Postgraduate Diploma experts in laboratory techniques for Nutritional Genomics.

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

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



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 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 Genomic and Precision Nutrition can be applied.
- ◆ Be able to assess individual response to nutrition and dietary patterns in order to promote health and disease prevention.
- ◆ Understand 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 updated information in perspective. Where we are now and where we are going so that the student can appreciate the ethical, economic and scientific implications in the field.





Specific Objectives

- ◆ Understand the techniques used in Nutritional Genomics Studies
- ◆ Acquiring the latest advances in Bioinformatics and Biomedical techniques.

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

03

Course Management

The program's faculty includes leading experts in Genomic and Precision Nutrition, who bring their work experience to this specialization. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.





“

Leading practitioners in the field have come together to teach you the latest advances in Genomic Nutrition Laboratory Techniques”

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

- ♦ PhD. in Biomedicine
- ♦ Lecturer in Nutrigenetics
- ♦ Founder of DNANUTRICOACH®
- ♦ Dietitian- Nutritionist
- ♦ Food Technologist

Professors

Mr. Anglada, Roger

- ♦ Graduate in Multimedia. Polytechnic University of Catalonia
- ♦ Certificate of Higher Education (HNC) in Superior Technician in Analysis and Control. Narcís Monturiol IES, Barcelona
- ♦ Superior Technical support for research in Genomics Core Facility, Pompeu Fabra University



04

Structure and Content

The structure of the contents has been designed by a team of practitioners knowledgeable about the implications of education in daily practice, aware of the relevance of the current relevance of the preparation in Nutritional Genomics and Precision Nutrition; and committed to quality teaching through new educational technologies.



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

Module 1. Laboratory Techniques for Nutritional Genomics

- 1.1. Molecular Biology Laboratory
 - 1.1.1. Basic Instructions
 - 1.1.2. Basic Material
 - 1.1.3. Accreditations Required in the US.
- 1.2. DNA Extraction
 - 1.2.1. From Saliva
 - 1.2.2. From Blood
 - 1.2.3. From Other Fabrics.
- 1.3. Real-Time PCR
 - 1.3.1. Introduction - History of the Method.
 - 1.3.2. Basic Protocols Used.
 - 1.3.3. Most Used Equipment.
- 1.4. Sequencing
 - 1.4.1. Introduction - History of the Method.
 - 1.4.2. Basic Protocols Used.
 - 1.4.3. Most Used Equipment.
- 1.5. High-throughput
 - 1.5.1. Introduction - History of the Method.
 - 1.5.2. Examples of Human Studies.
- 1.6. Gene Expression - Genomics - Transcriptomics
 - 1.6.1. Introduction - History of the Method
 - 1.6.2. Microarrays
 - 1.6.3. Microfluidic Cards
 - 1.6.4. Examples of Human Studies
- 1.7. Omics Technologies and their Biomarkers
 - 1.7.1. Epigenomics
 - 1.7.2. Proteomics
 - 1.7.3. Metabolomics
 - 1.7.4. Metagenomics
- 1.8. Bioinformatics Analysis
 - 1.8.1. Pre- and post-Computing Bioinformatics Programs and Tools
 - 1.8.2. GO Terms, Clustering of DNA Microarray Data
 - 1.8.3. Functional Enrichment, GEPAS, Babelomics



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



05

Methodology

This training 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 abundant 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. 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, 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 specialties regardless of from the 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 multimedia content presentation training system 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 training.





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

The Postgraduate Certificate in Laboratory Techniques for Nutritional Genomics in Nursing guarantees, in addition to the most rigorous and up-to-date training, access to a university degree issued by TECH Global University.



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Include in your specialization a Postgraduate Certificate in Laboratory Techniques for Nutritional Genomics in Nursing, a highly qualified added value for any practitioner in this area"

This program will allow you to obtain your **Postgraduate Certificate in Laboratory Techniques for Nutritional Genomics in 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 Laboratory Techniques for Nutritional Genomics in Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
classroom



Postgraduate Certificate
Laboratory Techniques
for Nutritional Genomics
in Nursing

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- » Exams: online

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