

Postgraduate Certificate Metabolomics for Nursing





Postgraduate Certificate Metabolomics for Nursing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

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

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

Nutrition plays a fundamental role in people's health, which is why it is important for healthcare practitioners in this area to have a high level of specialization. This is the best opportunity you can find to increase your knowledge in Metabolomics for Nursing, a growing science that is closely linked to genomic and precision nutrition.



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*Give your career a boost with this
Metabolomics for Nursing training and you'll
notice how you advance in your daily practice”*

This Postgraduate Certificate details everything a health practitioner needs to know about Metabolomics. 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.

The objective of this Postgraduate Certificate is to understand and deepen the principles of metabolomics and proteomics. To this end, the most key techniques and the main applications that metabolomics and proteomics could have in the field of nutrition are explained. Therefore, the Postgraduate Certificate presents state-of-the-art data on the microbiota for its application and use in clinical practice towards a precise and more individualized patient treatment.

The Postgraduate Certificate puts special emphasis on the microbiota as a tool for preventive and more personalized nutrition. The main enterotypes, metabolomic profiles and how they relate to nutrition-related diseases are presented.

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 Metabolomics 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 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.
- Special emphasis on innovative methodologies in nutrigenetics and polymorphisms.
- 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



Get trained in the broad field of Metabolomics for Nursing and offer specialized treatments to your patients"

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This Postgraduate Certificate is the best investment you can make in selecting a refresher program to bring your knowledge of Metabolomics up to date"

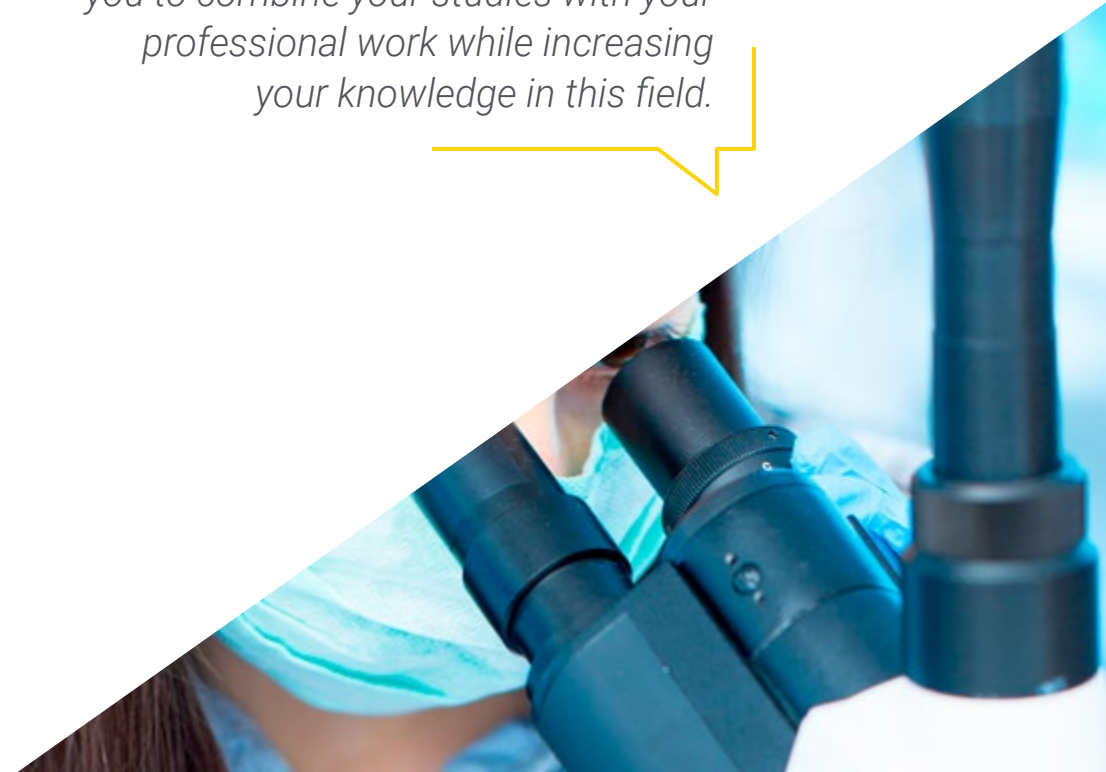
Its teaching staff includes professionals belonging to the field of nutrition, who contribute their work experience to this training, as well as renowned specialists from reference societies and prestigious universities.

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 Metabolomics.

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.



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 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

- ◆ Know the Principles of Metabolomics and Proteomics
- ◆ Deepen in the Microbiota as a Tool for Preventive and Personalized Nutrition



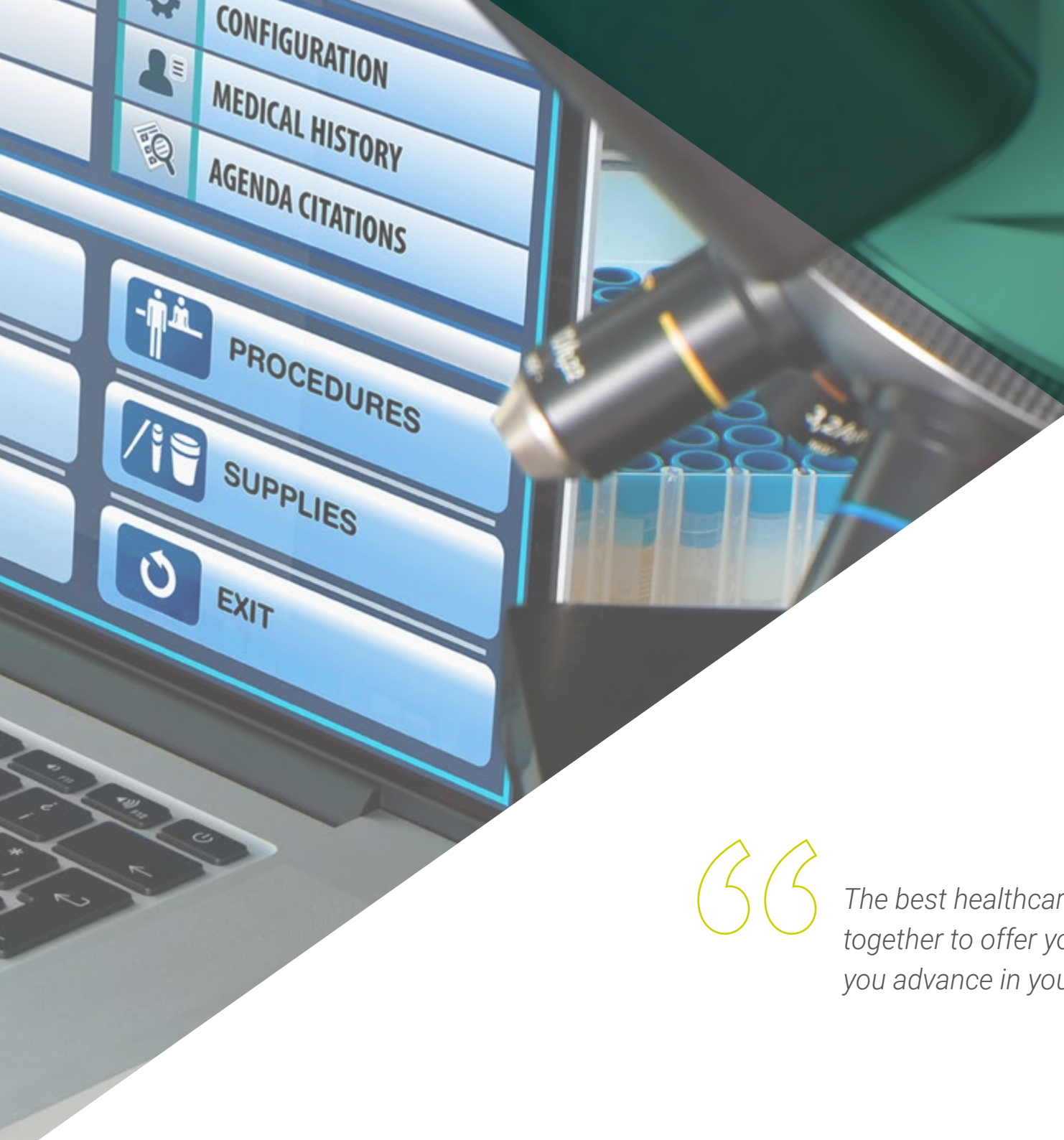
Take the step and join one of the largest online universities in the world"

03

Course Management

The program's teaching staff includes leading Postgraduate Certificate 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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The best healthcare practitioners have come together to offer you all their expertise and help you advance in your profession”

Management



Dr. Konstantinidou, Valentini

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

Professors

Dr. García Santamarina, Sarela

- ♦ EIPOD Marie Curie Postdoctoral Fellow. Project: "Probing the impact of xenobiotics on gut microbial communities (or microbiome)". European Molecular Biology Laboratory (EMBL), Heidelberg, Germany
- ♦ Postdoctoral Associate. Mentor: Professor Dennis J. Thiele. Project: "Copper homeostasis mechanisms at the host fungal pathogen interface in *Cryptococcus neoformans*". Duke University, Durham, North Carolina, USA
- ♦ PhD degree in Basic Biomedical Research. Project "Isolation and characterization of new models of endogenous oxidative stress in *Schizosaccharomyces pombe*". Pompeu Fabra Universitat, Barcelona, Spain



04

Structure and Content

The structure of the contents has been designed by a team of professionals who are familiar with the implications of training in daily practice, aware of the relevance of the current relevance of training 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 updated scientific program on the market. We strive for the excellence that we want you to achieve too"

Module 1. Metabolomics-Proteomics

- 1.1. Proteomics
 - 1.1.1. Principles of Proteomics
 - 1.1.2. The Flow of Proteomics Analysis
- 1.2. Metabolomics
 - 1.2.1. Principles of Metabolomics
 - 1.2.2. Targeted Metabolomics
 - 1.2.3. Non-Targeted Metabolomics
- 1.3. The Microbiome/Microbiota
 - 1.3.1. Microbiome Data
 - 1.3.2. Human Microbiota Composition
 - 1.3.3. Enterotypes and Diet
- 1.4. Main Metabolomic Profiles
 - 1.4.1. Application to Disease Diagnosis
 - 1.4.2. Microbiota and Metabolic Syndrome
 - 1.4.3. Microbiota and Cardiovascular Diseases Effect of the Oral and Intestinal Microbiota
- 1.5. Microbiota and Neurodegenerative Diseases
 - 1.5.1. Alzheimer's Disease
 - 1.5.2. Parkinson's Disease
 - 1.5.3. ALS
- 1.6. Microbiota and Neuropsychiatric Diseases
 - 1.6.1. Schizophrenia.
 - 1.6.2. Anxiety, Depression, Autism
- 1.7. Microbiota and Obesity
 - 1.7.1. Enterotypes
 - 1.7.2. Current Studies and State of Knowledge





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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.





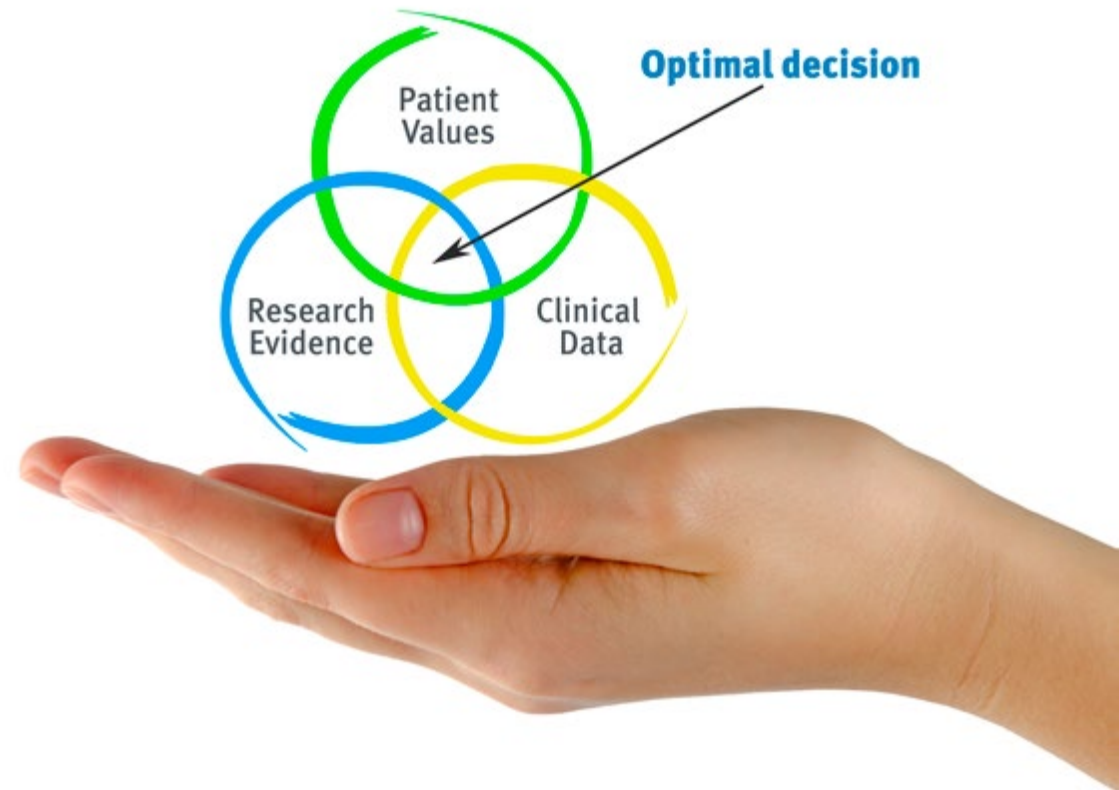
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Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

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 case studies 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. 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:

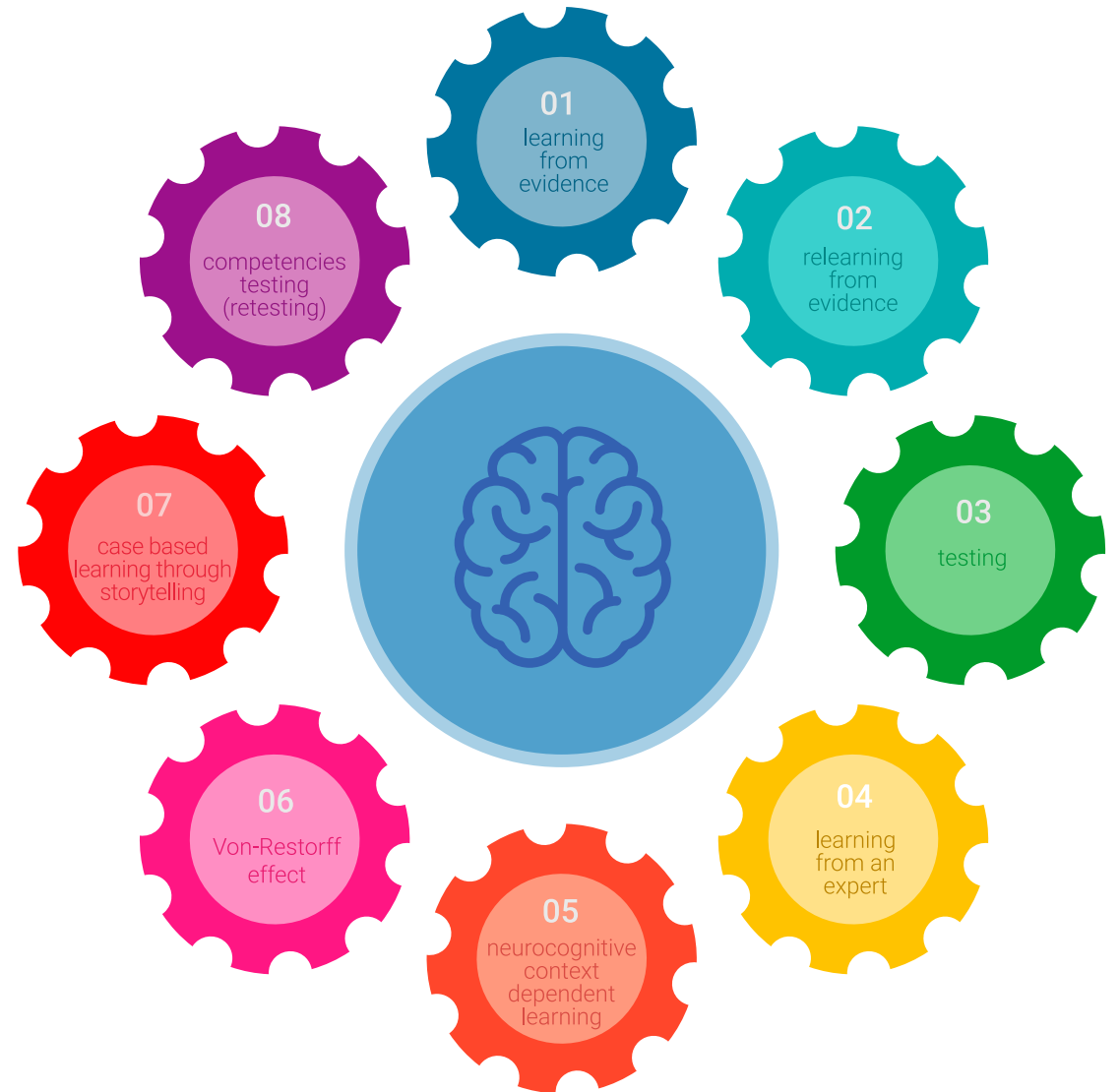
1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into 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 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

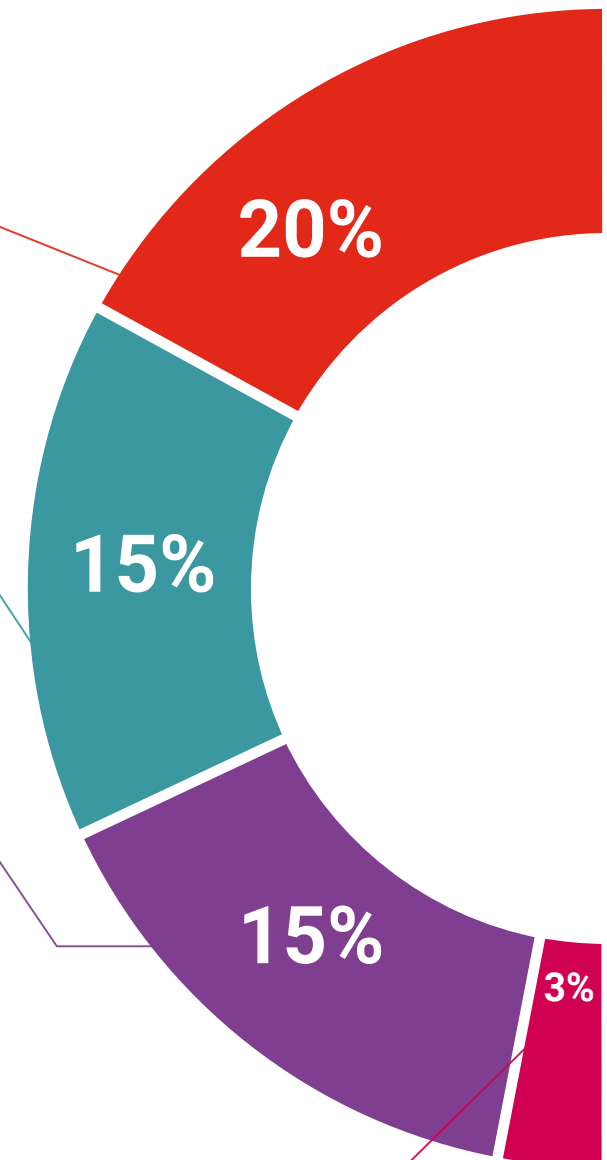
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

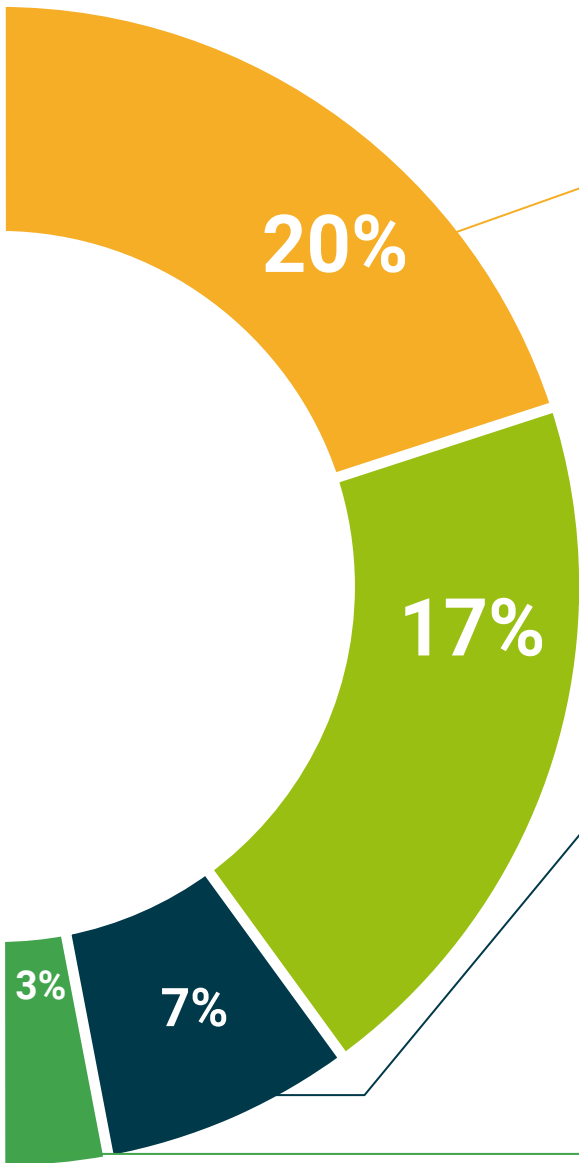
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



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

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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Add a course in Metabolomics for Nursing to your CV and become a highly competitive professional”

This **Postgraduate Certificate in Nutrigenetics for Nursing** contains the most complete and up to date scientific program on the market.

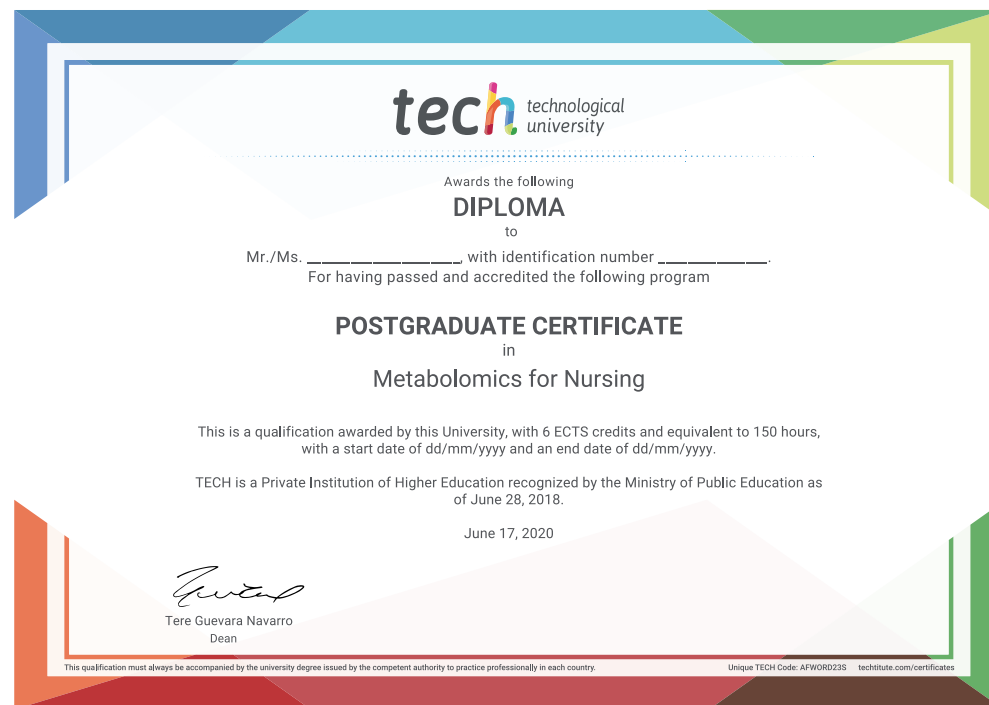
After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH - Technological University** via tracked delivery*.

The diploma issued by **TECH - Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Metabolomics for Nursing**

ECTS: **6**

Official Number of Hours: **150**



*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.



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