Professional Master's Degree
Nutritional Genomics and Precision Nutrition

tech technological university

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Professional Master's Degree
Nutritional Genomics and Precision Nutrition

Course Modality: **Online**

Duration: **12 months.**

Certificate: **TECH Technological University**

60 ECTS Credits

Teaching Hours: **1,500 hours.**

Website: **www.techtitute.com/nutrition/professional-master-degree/master-nutritional-genomics-precision-nutrition**

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01
Introduction

Nutrition has been placed at the forefront in the work of prevention, maintenance and recovery of health. This leap, which is already solidly recognized, has recently been given aboost of enormous relevance with the incorporation of studies on the human genome and its relationship with nutrition. Nutrigenomics has created new avenues of work and intervention that open up an infinite horizon of possibilities for specialists in this field. Solid training is essential in this context. With this **Professional Master's Degree**, unique for its quality, you will acquire the skills of an expert in Genomic and Precision Nutrition. A leap in quality that will drive you to the excellence of the best professionals in the sector.

Expand your knowledge through this program, where you will find the best didactic material with real clinical cases"

The Professional Master's Degree in Nutritional Genomics and Precision Nutrition is unique because it includes a wide range of innovative topics and state-of-the-art results in the field of nutrigenetics and nutrigenomics.

The training program details everything a health professional needs to know about this new specialty. The material is organized in such a way as to advance knowledge without leaving any 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 genomic nutrition, including specific modules on laboratory techniques and statistics.

The content includes everything new in the broad field of nutritional genomics such as nutrigenetics, nutrigenomics, epigenetics, metabolomics, market status and laboratory techniques, among others. There is a selection of scientific articles, high-level studies, innovative results and books that the student will be able to access and study.

In addition, this Professional Master's Degree has the innovation of including practical sections on the current state of the market that offer a realistic, practical and updated view for the health professional who needs a 360º vision of the subject. The practical topics help to obtain the necessary critical capacity and deep knowledge of the subject matter for the student to use and apply it in their clinical practice.

This Professional Master's Degree provides students with specific tools and skills to successfully develop their professional activity related to genomic and precision nutrition.

As it is an Online Professional Master's Degree, 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 **Professional Master's Degree in Nutritional Genomics and Precision Nutrition** 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 Nutritional Genomics and Precision Nutrition.

- 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 Nutritional Genomics and offer specialized treatments to your patients"

This Professional Master's Degree is the best investment you can make in selecting a refresher program to expand your knowledge in Genomic and Precision Nutrition"

The Professional Master's Degree provides training in simulated environments, which provides immersive learning designed to train professionals for real situations.

This 100% online Professional Master's Degree 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. To do so, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Genomic and Precision Nutrition.

02
Objectives

The main objective of the program is the development of theoretical-practical learning, so that the nutrition professional can master in a practical and rigorous way the study of Genomic and Precision Nutrition.

This refresher program will generate a sense of confidence in the performance of your daily practice, which will help you grow 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 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

Module 1. Introduction to Genomic and Precision Nutrition
- Present definitions necessary to follow the thread of the following modules
- Explain relevant points of human DNA, nutritional epidemiology, scientific method
- Analyze key studies in Genomic Nutrition.

Module 2. Laboratory Techniques for Nutritional Genomics
- Understand the techniques used in Nutritional Genomics Studies
- Acquire the latest advances in Bioinformatics and Biomedical techniques.

Module 3. Biostatistics for Genomic Nutrition
- Acquire the necessary knowledge to correctly design experimental studies in the areas of Nutrigenomics and Nutrigenetics
- Delve in statistical models for clinical studies in humans

Module 4. Nutrigenetics I
- Acquire the latest knowledge on population genetics.
- Understand how the basis for the interaction between Genetic Variability and Diet is generated
- Introduce the advanced Circadian Control System and Central and Peripheral Clocks

Module 5. Nutrigenetics II - Key Polymorphisms
- Present the Key Polymorphisms to date related to Human Nutrition and Metabolic Processes that the Professional needs to know about
- Analyze the Key Studies that support these Polymorphisms and the debate, where it exists.

Module 6. Nutrigenetics III
- Present the Key Polymorphisms to date related to Complex Diseases that depend on Nutritional Habits
- Introduce new Advanced Concepts in Nutrigenetic Research

Module 7. Nutrigenomics
- Delve into the Differences between Nutrigenetics and Nutrigenomics
- Present and Analyze Genes related to Metabolic Processes affected by Nutrition.

Module 8. Metabolomics-Proteomics
- Know the Principles of Metabolomics and Proteomics
- Delve in the Microbiota as a Tool for Preventive and Personalized Nutrition

Module 9. Epigenetics
- Explore the Basis of the Relationship between Epigenetics and Nutrition
- Present and Analyze how MicroRNAs are Involved in Genomic Nutrition

Module 10. Current Market State
- Present and Analyze Key Aspects for the Application of Genomic Nutrition in Society
- Reflect and Analyze Past and Present Cases and Anticipate Future Market Developments in the Field of Genomic Nutrition

03

Skills

After passing the evaluations of the **Professional Master's Degree in Nutritional Genomics and Precision Nutrition**, the professional will have acquired the necessary skills for a quality and up-to-date practice based on the most innovative didactic methodology

This program will help you acquire the skills you need to excel in your daily work"

**After completing this training, the professional will be able to:**

General Skills

- Conduct individual reflective work on new Nutrigenetics and Precision Nutrition data
- Study and evaluate current controversial issues on this subject
- Evaluate and use commercially available Genomic and Precision Nutrition tools in their clinical practice

Take the step and join one of the largest online universities in the world"
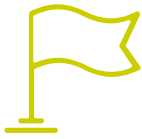
Specific Skills from the Professional Master's Degree

- Distinguishing between Nutrigenetics and Nutrigenomics

- Possess and understand original knowledge within the broader context of nutrition

- Apply critical, logical and scientific thinking to nutritional recommendations

- Understand the global context of Genomic and Precision Nutrition

- In-depth knowledge of all fields of Genomic and Precision Nutrition, its history and future applications.

- Acquire the latest advances in nutritional research

- Know the strategies used in research to identify the loci and genetic variants studied by Nutrigenetics

- Know how the advances in Genomic Nutrition were generated and what skills are necessary to keep constantly updated

- Formulate new hypotheses and work in an inter-disciplinary manner

- Integrate knowledge and deal with the complexity of data, evaluate relevant literature to incorporate scientific advances into your own professional field

- Understand how the scientific knowledge of Nutrigenetics and Nutrigenomics is translated and applied to clinical use in today's society

- Apply knowledge of Genomic Nutrition for health promotion

- Know the theory of basic laboratory techniques used in genomic nutrition

- Know the basis of statistical analyses used in Genomic Nutrition

- Know the current state of the market in the field of Genomic Nutrition

- Know the trends in the field of Genomic Nutrition

- Understand the process of discovering new Genetic Nutrition data and the process of evaluating it prior to use

- Delve into the analysis of different types of studies in genetic epidemiology in order to be able to perform an adequate interpretation of the articles published in this field and identify the limitations of each type of study

04
Course Management

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

Leading professionals in the field have come together to teach you the latest advances in Nutritional Genomics and Precision Nutrition"

Management

Dr. Konstantinidou, Valentini

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

Professors

Anglada, Roger

- Graduate in Multimedia. Polytechnic University of Catalonia.
- Senior Technician in Analysis and Control. Narcís Monturiol HSI, Barcelona.
- Senior research support technician at the Genomics Service of the Pompeu Fabra University where he is responsible for the equipment and devices for sequencing and real-time PCR, providing support to users from different centers both in the design and interpretation of the results.
- Co-author of several scientific publications since 2002. He combines his work with lectures and teaching both at Pompeu Fabra University and in different programs and courses.

Dr. García Santamarina, Sarela

- D. in Biomedical Research Pompeu Fabra University, Barcelona, Spain. 2008-2013.
- Master's Degree in Molecular Biology of Infectious Diseases. London School of Hygiene & Tropical Medicine, London, United Kingdom. 2006-2007.
- Master's Degree in Biochemistry and Molecular Biology. Autonomous University of Barcelona, Spain. 2003-2004.
- Degree in Chemistry. Specialty in Organic Chemistry. University of Santiago de Compostela, Spain. 1996-2001.
- Postdoctoral Researcher EIPOD Marie Curie. Mentoring: Dr. Athanasios Typas, Dr. Peer Bork, and Dr. Kiran Patil. Project: "Effects of drugs on intestinal flora". European Molecular Biology Laboratory (EMBL), Heidelberg, Germany. Since 2018.

05
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.

This Professional Master's Degree in Nutritional Genomics and Precision Nutrition contains the most complete and up-to-date scientific program on the market"

Module 1. Introduction to Nutritional Genomics and Precision Nutrition

1.1   Human Genome
  1.1.1.   DNA discovery
  1.1.2.   Year 2001
  1.1.3.   Human Genome Project

1.2   Variations of Interest in Nutrition
  1.2.1.   Genomic Variations and the Search for Disease Genes.
  1.2.2.   Environment vs. Genetic Factor and Heritability
  1.2.3.   Differences between SNPs, Mutations and CNVs

1.3 The Genome of Rare and Complex Diseases
  1.3.1.   Examples of Rare Diseases
  1.3.2.   Examples of Complex Diseases
  1.3.3.   Genotype and Phenotype

1.4 Precision Medicine
  1.4.1.   Influence of Genetics and Environmental Factors in Complex Diseases
  1.4.2.   The Need for Precision The problem of Missing Heritability Concept of Interaction

1.5   Precision Nutrition vs. Community Nutrition
  1.5.1.   The Principles of Nutritional Epidemiology
  1.5.2.   Current Bases of Nutritional Research
  1.5.3.   Experimental Designs in Precision Nutrition

1.6 Levels of Scientific Evidence
  1.6.1. Epidemiological Pyramid
  1.6.2. Regulation
  1.6.3. Official Guides

1.7 Consortia and Major Studies in Human Nutrition and Genomic Nutrition
  1.7.1 Precision4Health Project
  1.7.2. Framingham
  1.7.3. PREDIMED
  1.7.4. CORDIOPREV

1.8   Current European Studies

    1.8.1.   PREDIMED Plus

    1.8.2.   NU-AGE

    1.8.3.   FOOD4me

    1.8.4.   EPIC

Module 2. Laboratory Techniques for Nutritional Genomics

2.1   Molecular Biology Laboratory

    2.1.1.   Basic Instructions

    2.1.2.   Basic Material

    2.1.3.   Accreditations Required in the EU

2.2   DNA Extraction

    2.2.1.   From Saliva

    2.2.2.   From Blood

    2.2.3.   Other Tissues

2.3   Real-Time PCR

    2.3.1.   Introduction - History of the Method

    2.3.2.   Basic Protocols Used

    2.3.3.   Most Used Equipment

2.4   Sequencing

    2.4.1.   Introduction - History of the Method

    2.4.2.   Basic Protocols Used

    2.4.3.   Most Used Equipment

2.5   High throughput

    2.5.1.   Introduction - History of the Method.

    2.5.2.   Examples of Human Studies.

2.6   Gene Expression - Genomics - Transcriptomics

    2.6.1.   Introduction - History of the Method

    2.6.2   Microarrays

    2.6.3.   Microfluidic Cards

    2.6.4.   Examples of Human Studies

2.7   Omics Technologies and their Biomarkers

    2.7.1.   Epigenomics

    2.7.2.   Proteomics

    2.7.3.   Metabolomics

    2.7.4.   Metagenomics

2.8   Bioinformatics Analysis

    2.8.1.   Pre- and post-Computing Bioinformatics Programs and Tools

    2.8.2.   GO Terms, Clustering of DNA Microarray Data

    2.8.3.   Functional Enrichment, GEPAS, Babelomics

Module 3. Biostatistics for Genomic Nutrition

3.1   Biostatistics

    3.1.1.   Human Studies Methodology

    3.1.2.   Introduction to Experimental Design

    3.1.3.   Clinical Studies

3.2   Statistical Aspects of a Protocol

    3.2.1.   Introduction, Objectives, Description of Variables

    3.2.2.   Quantitative Variables

    3.2.3.   Qualitative Variables

3.3   Design of Clinical Studies in Humans, Methodological Guidelines

    3.3.1.   Designs with 2 treatments 2x2

    3.3.2.   Designs with 3 treatments 3x3

    3.3.3.   Parallel, Cross-Over, Adaptive Design

    3.3.4.   Sample Size Determination and Power Analysis

3.4   Evaluation of Treatment Effect

    3.4.1.   For Parallel Design, for Repeated Measurements, for Cross-Over Design

    3.4.2.   Randomization of the Order of Treatment Assignment

    3.4.3.   Carry-Over Effect (Wash Out)

3.5   Descriptive Statistics, Hypothesis Testing, Risk Calculation

    3.5.1.   Consort, Populations

    3.5.2.   Study Populations

    3.5.3.   Control Group

    3.5.4.   Subgroup Analysis Types of Studies

3.6. Statistical Errors

    3.6.1. Measurement Errors

    3.6.2. Random Error

    3.6.3. Systematic Error

3.7 Statistical Bias

    3.7.1. Selection Bias

    3.7.2. Observation Bias

    3.7.3. Allocation Bias

3.8 Statistical Modeling

    3.8.1. Continuous Variable Models

    3.8.2. Categorical Variables Models

    3.8.3. Linear Mixed Models

    3.8.4. Missing data, Flow of Participants, Presentation of Results

    3.8.5 Adjustment for Baseline Values, Transformation of Response Variable: Differences, Ratios, Logarithms, Carry-Over Evaluation

3.9 Statistical Modeling with Co-Variables

    3.9.1. ANCOVA

    3.9.2. Logistic Regression for Binary and Count Variables

    3.9.3. Multi-Variant Analysis

3.10 Statistical Programs

    3.10.1. The R

    3.10.2. SPSS

Module 4. Nutrigenetics I

4.1 Nutrigenetics Authorities and Organizations

    4.1.1. NUGO

    4.1.2. ISNN

    4.1.3. Evaluation Committees

4.2 GWAS I Studies

    4.2.1 Population Genetics - Design and Use

    4.2.2. Hardy-Weinberg Law

    4.2.3. Linkage Imbalance

4.3 GWAS II

    4.3.1. Allelic and Genotypic Frequencies

    4.3.2. Gene-Disease Association Studies

    4.3.3. Association Models (Dominant, Recessive, Co-dominant)

    4.3.4. Genetic Scores

4.4 The Discovery of Nutrition-Related SNPs

    4.4.1. Key Studies-Design

    4.4.2. Main Results

4.5 The Discovery of SNPs Associated with Nutrition-Related Diseases (Diet-Depended)

    4.5.1. Cardiovascular Diseases.

    4.5.2. Diabetes Mellitus Type II

    4.5.3. Metabolic Syndrome

4.6 Main Obesity-Related GWAS

    4.6.1. Strengths and Weaknesses

    4.6.2. The FTO Example

4.7 Circadian Control of Intake

    4.7.1. Gut-Brain Axis

    4.7.2. Molecular and Neurological Basis of the Brain-Gut Connection

4.8 Chronobiology and Nutrition

    4.8.1. Central Clock

    4.8.2. Peripheral Clocks

    4.8.3. Circadian Rhythm Hormones

    4.8.4. Intake Control (Leptin and Ghrelin)

4.9 SNPs related to Circadian Rhythms

    4.9.1. Regulatory Mechanisms of Satiety

    4.9.2. Hormones and Intake Control

    4.9.3. Possible Pathways Involved

Module 5. Nutrigenetics II - Key Polymorphisms

5.1   Obesity-Related SNPs

    5.1.1.   The Story of the " Obese Monkey"

    5.1.2.   Appetite Hormones

    5.1.3.   Thermogenesis

5.2   Vitamin-Related SNPs

    5.2.1.   Vitamin D

    5.2.2.   B Complex Vitamins

    5.2.3.   Vitamin E

5.3   Exercise-Related SNPs

    5.3.1.   Strength vs. Competition

    5.3.2.   Sports Performance

    5.3.3.   Injury Prevention/Recovery

5.4   Oxidative Stress/Detoxification-related SNPs

    5.4.1.   Genes Encoding Enzymes

    5.4.2.   Anti-Inflammatory Processes

    5.4.3.   Phase I+II of Detoxification

5.5   SNP related to Addictions

    5.5.1.   Caffeine

    5.5.2.   Alcohol

    5.5.3.   Salt

5.6   SNP related to Flavor

    5.6.1.   Sweet Taste

    5.6.2.   Salty Taste

    5.6.3.   Bitter Taste

    5.6.4.   Acid Taste

5.7   SNP vs Allergies vs Intolerances

    5.7.1.   Lactose

    5.7.2.   Gluten

    5.7.3.   Fructose

5.8   PESA Study

Module 6. Nutrigenetics III

6.1   SNPs Predisposing to Complex Nutrition-Related Diseases - Genetic Risk Scores (GRS)

6.2   Type II Diabetes

6.3   Hypertension

6.4   Arteriosclerosis

6.5   Hyperlipidemia

6.6   Cancer

6.7   The Exposome Concept

6.8   Metabolic Flexibility Concept

6.9   Current Studies-Challenges for the Future

Module 7. Nutrigenomics

7.1   Differences and Similarities with Nutrigenetics

7.2   Bioactive Components of Diet on Gene Expression

7.3   The Effect of Micro and Macro Nutrients on Gene Expression

7.4   The Effect of Dietary Patterns on Gene Expression

    7.4.1.   The Mediterranean Diet Example

7.5   Main Studies in Gene Expression

7.6   Genes related to Inflammation

7.7   Genes related to Insulin Sensitivity

7.8   Genes related to Lipid Metabolism and Adipose Tissue Differentiation

7.9   Genes related to Arteriosclerosis

7.10   Genes related to the Myosceletal System

Module 8. Metabolomics-Proteomics

8.1 Proteomics
    8.1.1. Principles of Proteomics
    8.1.2. The Flow of Proteomics Analysis
8.2 Metabolomics
    8.2.1. Principles of Metabolomics
    8.2.2. Targeted Metabolomics
    8.2.3. Non-Targeted Metabolomics
8.3 The Microbiome / Microbiota
    8.3.1. Microbiome Data
    8.3.2. Human Microbiota Composition
    8.3.3. Enterotypes and Diet
8.4 Main Metabolomic Profiles
    8.4.1 Application to Disease Diagnosis
    8.4.2. Microbiota and Metabolic Syndrome
    8.4.3. Microbiota and Cardiovascular Diseases Effect of the Oral and Intestinal Microbiota
8.5 Microbiota and Neurodegenerative Diseases
    8.5.1. Alzheimer's Disease
    8.5.2. Parkinson's Disease
    8.5.3. ALS
8.6 Microbiota and Neuropsychiatric Diseases
    8.6.1. Schizophrenia
    8.6.2. Anxiety, Depression, Autism
8.7 Microbiota and Obesity
    8.7.1. Enterotypes
    8.7.2. Current Studies and State of Knowledge

Module 9. Epigenetics

9.1 History of Epigenetics - The way I feed my Grandchildren's Inheritance
9.2 Epigenetics vs Epigenomics
9.3 Methylation
    9.3.1. Examples of Folate and Choline, Genistein
    9.3.2. Examples of Zinc, Selenium, Vitamin A, Protein Restriction
9.4 Histone Modification
    9.4.1. Examples of Butyrate, Isothiocyanates, Folate and Choline
    9.4.2. Examples of Retinoic Acid, Protein Restriction
9.5 MicroRNA
    9.5.1. Biogenesis of MicroRNAs in Humans
    9.5.2. Mechanisms of Action-Regulating Processes
9.6 Nutrimiromics
    9.6.1. Diet-Modulated MicroRNAs
    9.6.2. MicroRNAs involved in Metabolism
9.7 Role of MicroRNAs in Diseases
    9.7.1. MicroRNA in Tumorogenesis
    9.7.2. MicroRNAs in Obesity, Diabetes and Cardiovascular Diseases
9.8 Gene Variants that Generate or Destroy Binding Sites for MicroRNAs
    9.8.1. Main Studies
    9.8.2. Results in Human Diseases
9.9. MicroRNA Detection and Purification Methods
    9.9.1. Circulating MicroRNAs
    9.9.2. Basic Methods Used

Module 10. Current Market State

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

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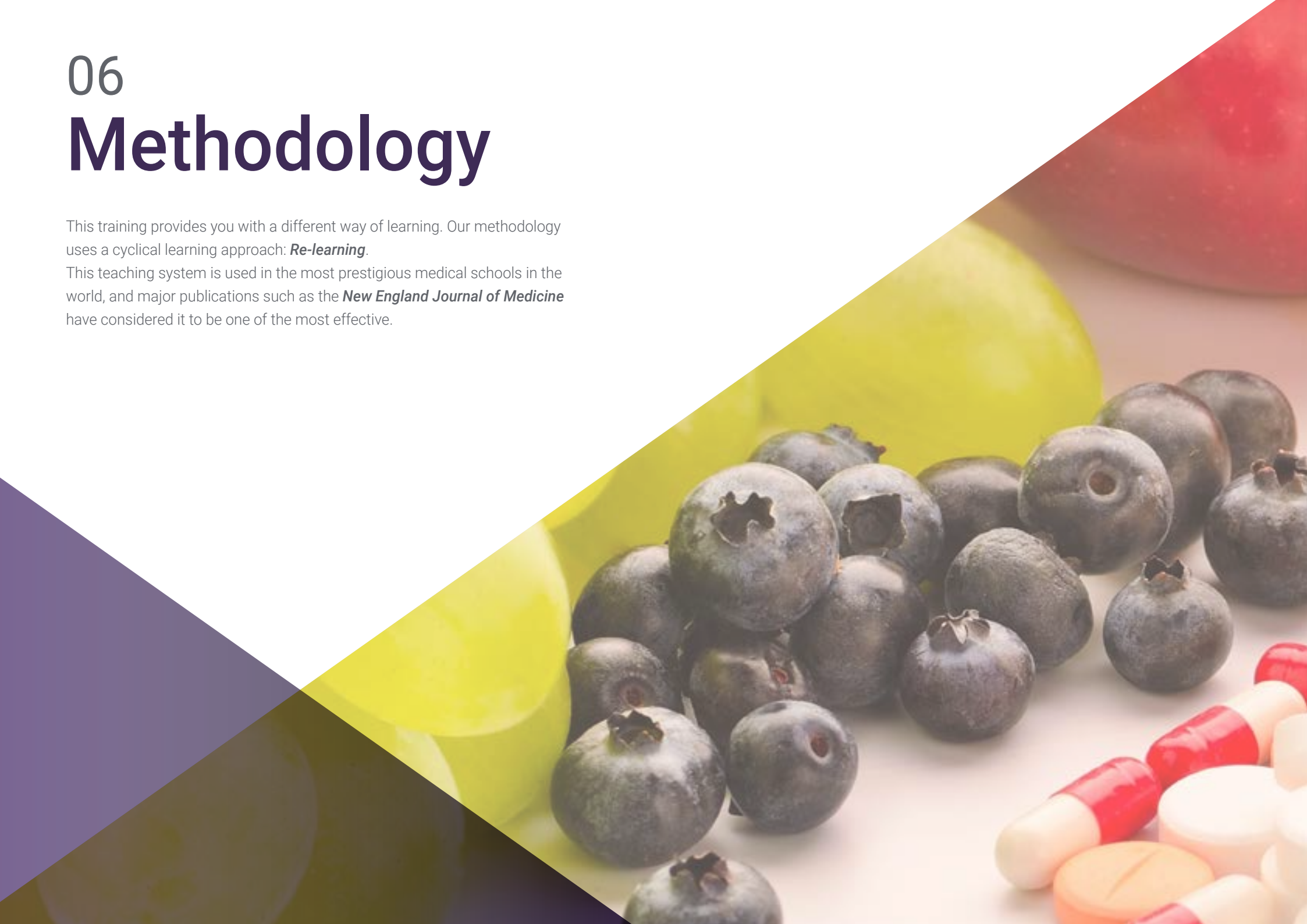
Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH 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. Nutritionists learn better, faster, and more sustainably over time.

With TECH, nutritionists can 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 potential 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 professional nutritional practice.

" *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. Nutritionists 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 is solidly focused on practical skills that allow the nutritionist to better integrate the knowledge into clinical practice.

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.

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 nutritionist 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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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 have trained more than 45,000 nutritionists with unprecedented success, in all clinical specialties regardless of 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 training, 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:
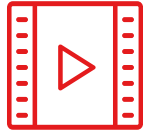
Study Material

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.

Nutrition Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current nutritional 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.

20%

15%

15%

3%

20%

17%

7%

3%
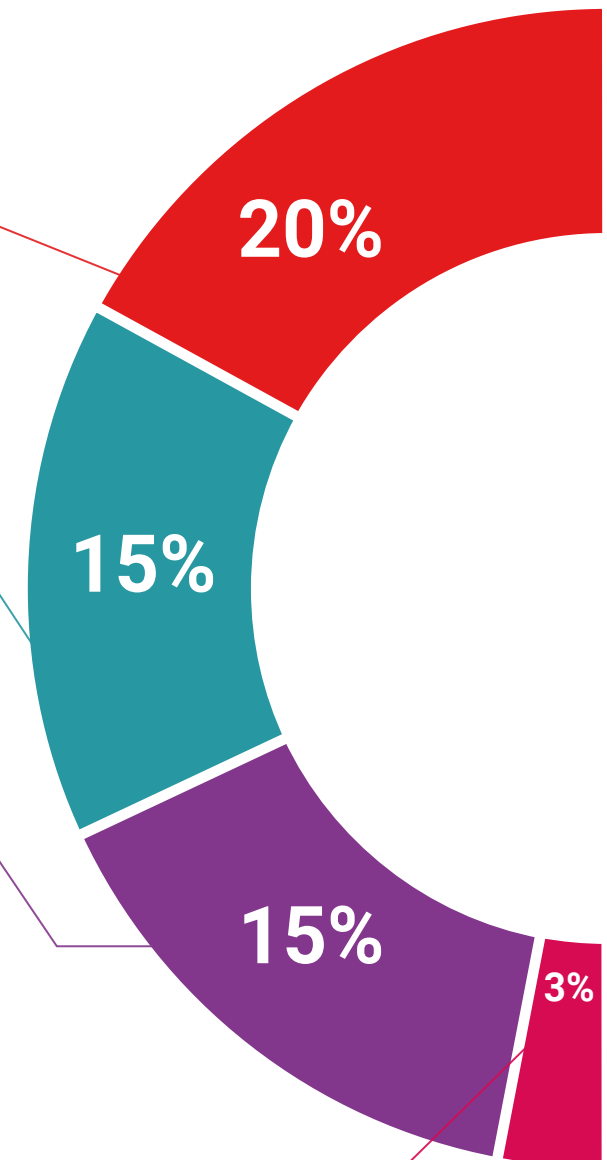
Expert-Led Case Studies and Case Analysis

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 & Re-Testing

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.

Certificate

The **Professional Master's Degree in Nutritional Genomics and Precision Nutrition** guarantees you, in addition to the most rigorous and up-to-date training, access to a **Professional Master's Degree** Certificate issued by **TECH Technological University.**

Successfully complete this training and receive your university degree without travel or laborious paperwork"

This **Professional Master's Degree in Nutritional Genomics and Precision Nutrition** contains the most complete and up-to-date scientific program on the market.
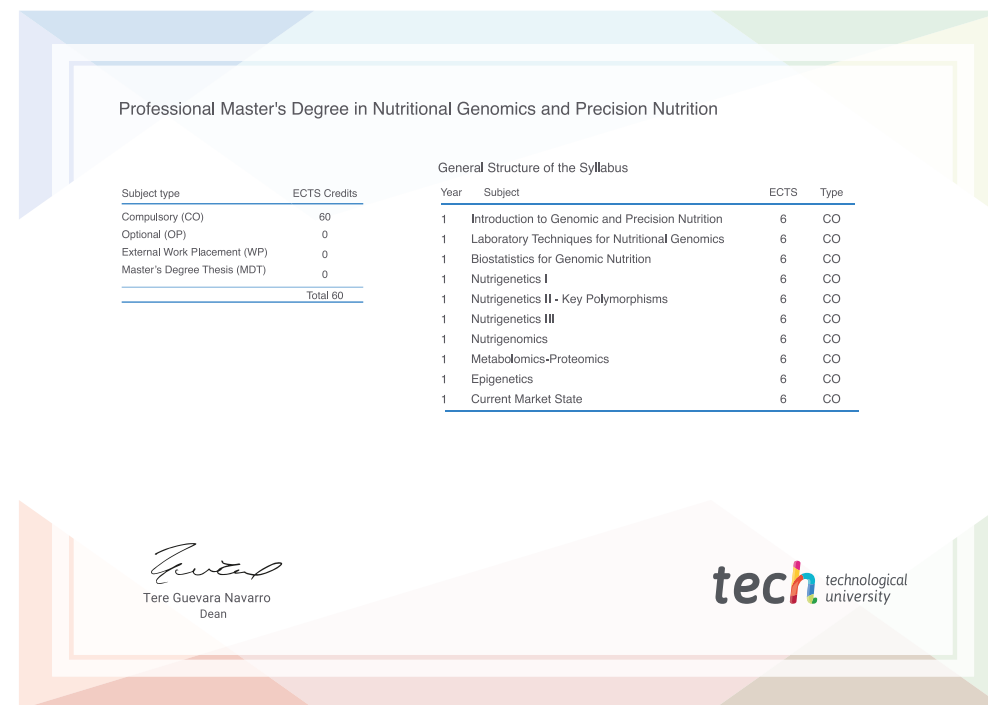
After the student has passed the evaluations, they will receive their corresponding **Professional Master's Degree Certificate** issued by TECH Technological University.

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 labor exchanges, competitive examinations, and professional from career evaluation committees.

Title: **Professional Master's Degree in Nutritional Genomics and Precision Nutrition.**

ECTS: **60**

Official Number of Hours: **1,500**

tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.
For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Nutritional Genomics and Precision Nutrition

This is a qualification awarded by this University, with 60 ECTS credits and equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

Professional Master's Degree in Nutritional Genomics and Precision Nutrition

Subject type	ECTS Credits
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1	Introduction to Genomic and Precision Nutrition	6	CO
1	Laboratory Techniques for Nutritional Genomics	6	CO
1	Biostatistics for Genomic Nutrition	6	CO
1	Nutrigenetics I	6	CO
1	Nutrigenetics II - Key Polymorphisms	6	CO
1	Nutrigenetics III	6	CO
1	Nutrigenomics	6	CO
1	Metabolomics-Proteomics	6	CO
1	Epigenetics	6	CO
1	Current Market State	6	CO

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*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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Professional Master's Degree
Nutritional Genomics and Precision Nutrition

Course Modality: **Online**

Duration: **12 months.**

Certificate: **TECH Technological University**

60 ECTS Credits

Teaching Hours: **1,500 hours.**

Professional Master's Degree

Nutritional Genomics and Precision Nutrition

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