Postgraduate Certificate
Laboratory Techniques for Nutritional Genomics

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Postgraduate Certificate
Laboratory Techniques for Nutritional Genomics

Course Modality: **Online**
Duration: **6 weeks**
Certificate: **TECH Technological University**
6 ECTS Credits
Teaching Hours: 150 hours.
Website: **www.techtitute.com/nutrition/postgraduate-certificate/laboratory-techniques-nutritional-genomics**

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01

Introduction

Nutritional Genomics is a growing discipline that requires specialized professionals who are constantly up to date. On this occasion we present the best course 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.

Give your career a boost with this training in Laboratory Techniques for Nutritional Genomics"

This training program details everything a health professional 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. This is the best specialization in the market, because it offers the opportunity to learn online all the innovation in the field of Nutritional Genomics.

Specifically, during this course the student will learn all the theory of Laboratory Techniques used in the field of Nutritional Genomics and Precision Nutrition. Thus, the basics will be presented so that students 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 professional 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** contains the most complete and up-to-date scientific program on the market. The most important features of the specialization are:

- The development of case studies presented by experts in Nutritional Genomics 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 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

Get trained 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 a refresher program to update your knowledge 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 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 Specialization, as well as renowned Specialists from Reference Societies and Prestigious Universities.

Its Multimedia Content, elaborated with the latest Educational Technology, will allow the Professional a situated and contextual learning, that is to say, a Simulated Environment that will provide an immersive specialization 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 Laboratory Techniques for Nutritional Genomics.

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Objectives

The main objective of the program is the development of theoretical and practical learning, so that the nutrition professional can master in a practical and rigorous way the study of Nutritional Genomics 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 Nutritional Genomics and Precision Nutrition to be able to apply it in clinical practice.
- Learn about the trajectory of this innovative field and the key studies that contributed to its development.
- Know in which pathologies and conditions of human life Nutritional Genomics and Precision Nutrition can be applied.
- Be able to assess individual response to nutrition and dietary patterns in order to promote health and disease prevention.
- Understand how nutrition influences gene expression in humans.
- Learn about new concepts and future trends in the field of Nutritional Genomics and Precision Nutrition.
- Adapt personalized dietary and lifestyle habits according to genetic polymorphisms.
- Provide health professionals with all the up-to-date knowledge in the field of Nutritional Genomics 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

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

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

03

Course Management

The program includes in its teaching staff leading experts in Nutritional Genomics and Precision Nutrition, who bring the experience of their work to this specialization. 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 Laboratory Techniques for Nutritional Genomics"

Management

Dr. Konstantinidou, Valentini

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

Professors

Anglada, Roger

- Graduate in Multimedia. Open 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

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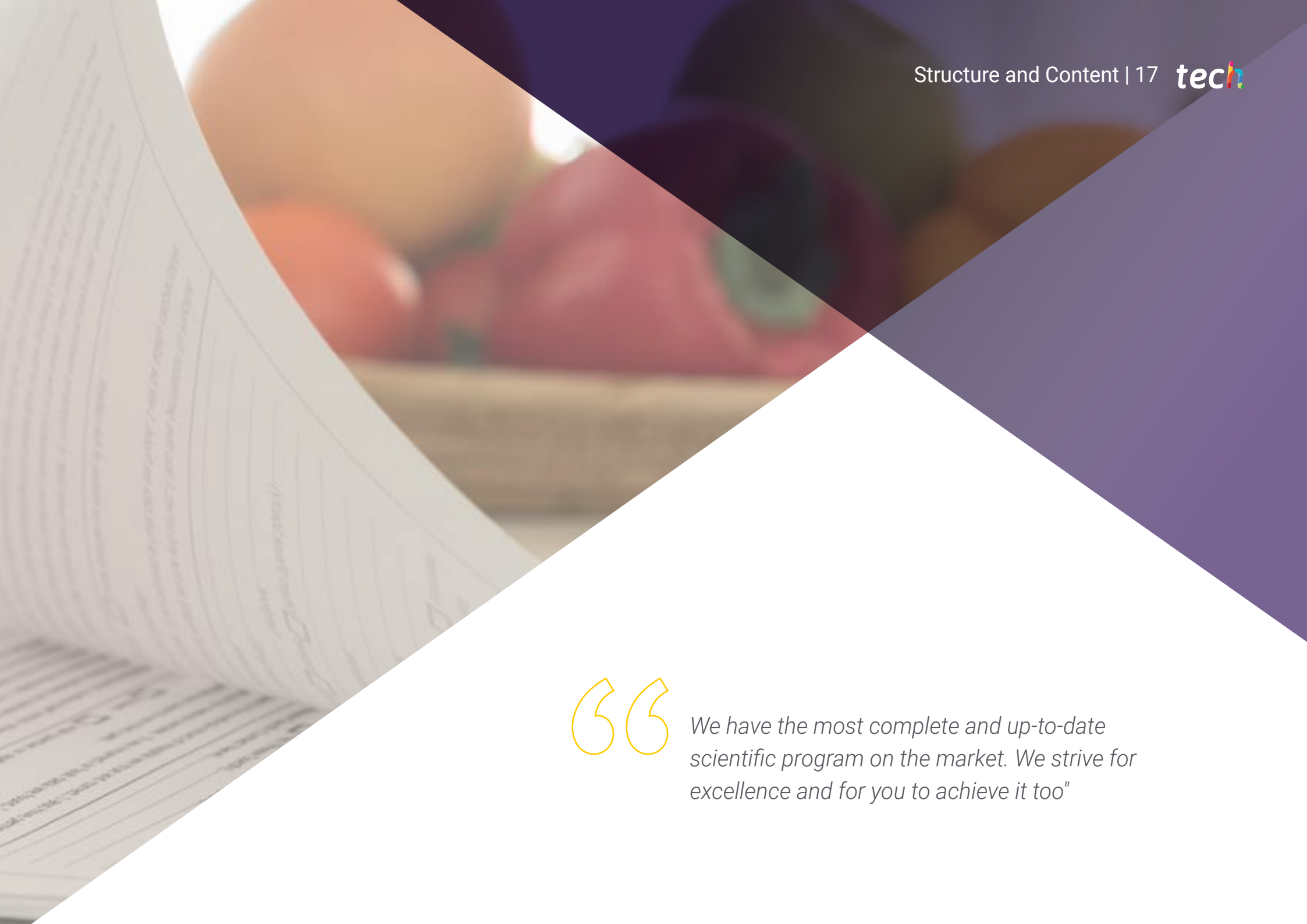
Structure and Content

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



We have the most complete and up-to-date scientific program on 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 U.S.

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

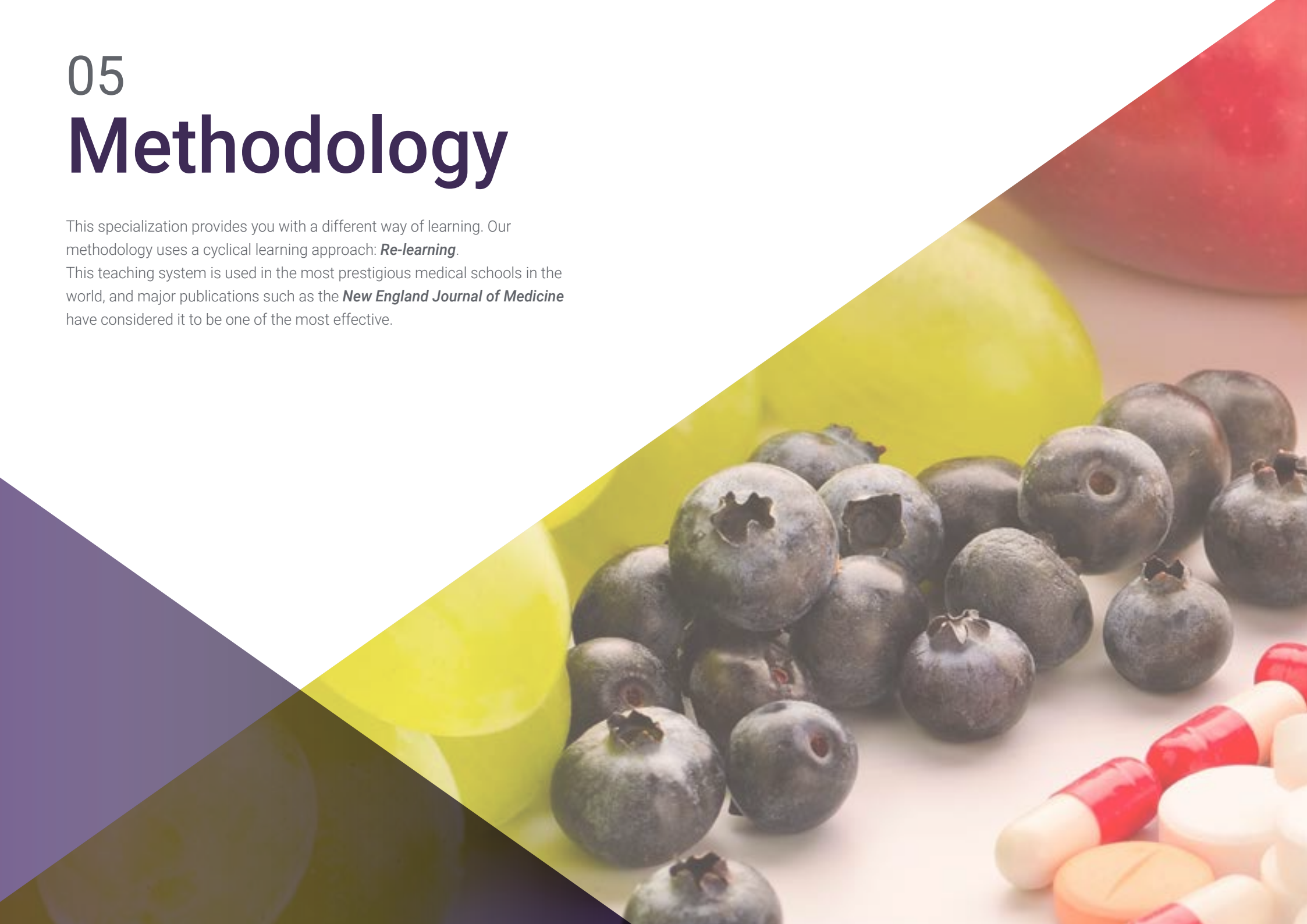
1.8. Bioinformatics Analysis
- 1.8.1. Pre- and post-Computing Bioinformatics Programs and Tools
- 1.8.2. GO Terms, Clustering of DNA Microarray Data
- 1.8.3. Functional Enrichment, GEPAS, Babelomics

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

05

Methodology

This 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.



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 an abundance of 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 of 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:

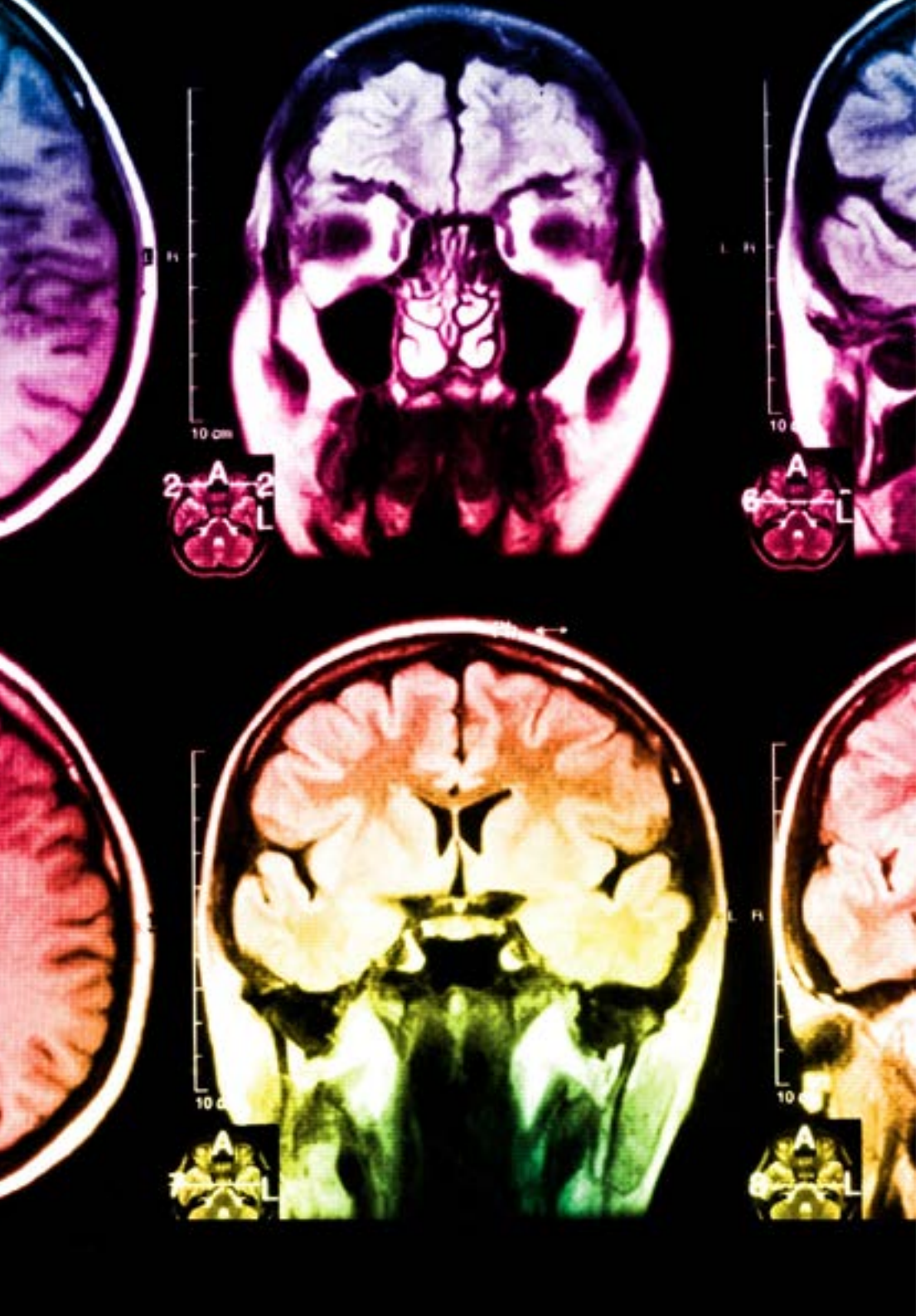
1. Nutritionists who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning is solidly focused on practical skills that allow the nutritionist to better integrate the knowledge into clinical practice.
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.



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 45,000 nutritionists with unprecedented success, in all clinical specialties regardless of the manual/practical load. 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, the latest educational advances, and 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.

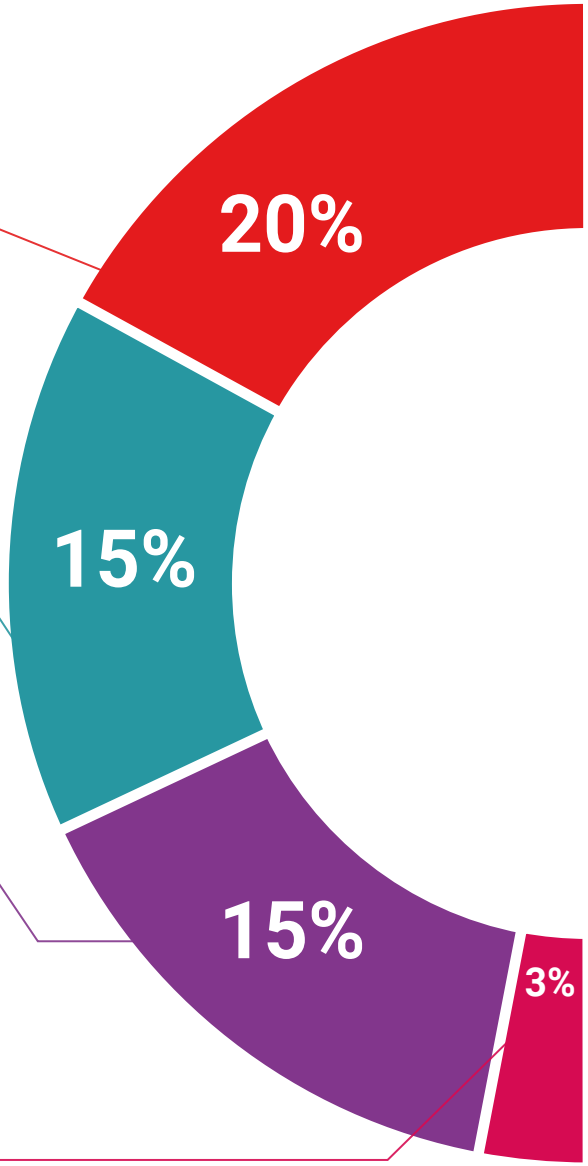
Interactive Summaries

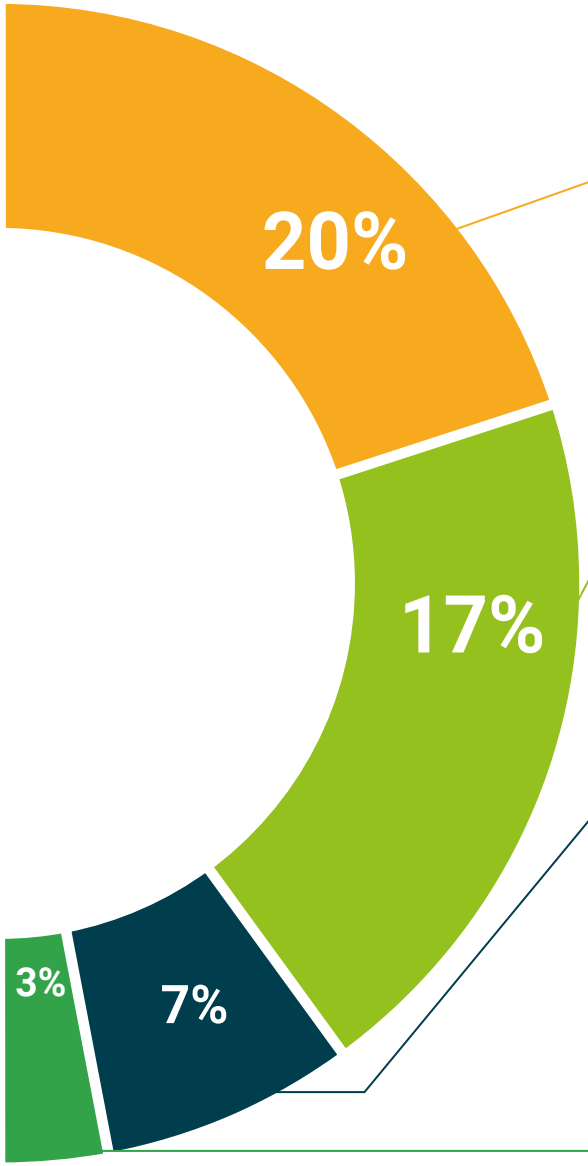
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique 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 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 & 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 difficult future 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

In addition to the most rigorous and up-to-date training, the Postgraduate Certificate in Laboratory Techniques for Nutritional Genomics guarantees access to a Postgraduate Certificate qualification issued by TECH Technological University.

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

This **Postgraduate Certificate in Laboratory Techniques for Nutritional Genomics** 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 Laboratory Techniques for Nutritional Genomics**

ECTS: **6**

Official Number of Hours: **150**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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Laboratory Techniques for Nutritional Genomics

This is a qualification awarded by this University, with 6 ECTS credits and equivalent to 150 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

*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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Laboratory Techniques for Nutritional Genomics

Course Modality: **Online**
Duration: **6 weeks**
Certificate: **TECH Technological University**
6 ECTS Credits
Teaching Hours: **150 hours.**

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