

# Postgraduate Certificate

## Microbiota in Pediatrics for Nutritionists





## Postgraduate Certificate Microbiota in Pediatrics for Nutritionists

Course Modality: **Online**

Duration: **2 months.**

Endorsed by: **TECH Technological University**

**5 ECTS credits**

Teaching Hours: **125 hours.**

Website: [www.techtute.com/nutrition/postgraduate-certificate/microbiota-pediatrics-nutritionists](http://www.techtute.com/nutrition/postgraduate-certificate/microbiota-pediatrics-nutritionists)

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# 01

# Introduction

Scientific research in the field of the Microbiota of children and adolescents in the last decades is booming. This is aimed both at the study of their own characteristics, as well as the impact on the health of minors, as it opens a door to the knowledge of multiple diseases, especially those called functional, being the microbiome the main field of action of health professionals in this field. Aware of this, TECH professionals have designed this Postgraduate Certificate that aims to train nutritionists to be able to understand the functioning of the microbiome in pediatric patients. All this will make them much more competent professionals, prepared to design diets specifically for these types of patients, which favor their microbiotic environment.



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*Knowledge of Microbiota in Pediatrics gives the nutritionist the ability to design food plans that favor the child's natural balance and good health"*



Numerous scientific evidences have implicated the infant microbiome and its potential impact on various pathological conditions in recent years, giving rise to new therapeutic strategies to control and regulate this ecosystem. The study of this ecosystem is a field of rapid scientific progress, and it is universally accepted that, in order to achieve an adequate state of health in the child, it is necessary to promote the existence of a "healthy" Microbiota.

The Microbiota undergoes changes as children grow older. All this as a consequence of the influence of multiple factors, diet, lifestyle, pharmacological treatments..... These factors generate alterations in this bacterial ecosystem, and the anomalous interaction that the organism could have with it is related to certain processes: allergies, acute and chronic intestinal diseases, obesity and metabolic syndrome, neurological diseases, dermatitis and other alterations in the dermis, and even some types of cancer.

In this sense, this Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists responds to the need for information of nutritionists in this field. Therefore, this training program focuses on providing them with general knowledge of all topics related to Microbiota, its Eubiosis and Dysbiosis related problems.

Likewise, during the training course, the use of Probiotics and Prebiotics and the growing market launch of new products with very specific strains for very specific problems and diseases will be discussed in depth. This will help the Nutritionist to better understand the treatment of pathologies in pediatric patients through nutrition, and will allow them to offer a much more adapted and personalized treatment to children and adolescents.

This will enable the Nutritionist to be able to guide children so that they can recover and maintain that bacterial Eubiosis and thus have a good state of health, in addition to collaborating in a positive way with the recommended medical treatment.

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

- ♦ Development of practical cases presented by experts in Microbiota in Neonatology and Pediatrics. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ New developments on Microbiota in Neonatology and Pediatrics.
- ♦ It contains practical exercises where the self-evaluation process can be carried out to improve learning.
- ♦ Special emphasis on innovative methodologies in Microbiota in Neonatology and Pediatrics.
- ♦ All this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- ♦ Availability of the contents from any fixed or portable device with an internet connection.



*Improve your knowledge in Microbiota in Pediatrics through this program, where you will find the best didactic material with real cases"*

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*This Postgraduate Certificate is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Microbiota in Pediatrics, you will obtain a certificate from one of the most reputable educational institutions: TECH”*

The program includes, in its teaching staff, professionals belonging to the field of medicine and nutrition, who contribute the experience of their work to this program, in addition to recognized 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 created by renowned and experienced experts in Microbiota.

*The Postgraduate Certificate allows you to exercise through simulated environments, which provide immersive learning programmed to train for real 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 professional can master in a practical and rigorous way the study of Microbiotics in the daily practice of your profession. In this sense, the Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists responds to the continuous demand of professionals for quality training in this area, which serves as a means to use food as a preventive or therapeutic tool in maintaining the health of their pediatric patients.





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*This Postgraduate Certificate is designed for you to update your knowledge in Microbiota in Pediatrics for Nutritionists, with the use of the latest educational technology, to contribute with quality and safety to decision making in this field"*



## General Objectives

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- This course fulfills a need of today's society, a quality and up-to-date training that allows the use of microbiological therapy as a preventive or therapeutic tool for the maintenance of health.
- Offer a comprehensive and broad view of the current state of the field of human Microbiota, in its broadest sense, the importance of the balance of this Microbiota as a direct effect on our health, with the multiple factors that influence it positively and negatively.
- Argue with the backing of scientific evidence how the Microbiota and its interaction with many non-digestive, autoimmune pathologies or its relationship with the dysregulation of the immune system, the prevention of diseases, and as a support to other medical treatments is currently being given a high degree of importance.
- Promote work strategies based on the integral approach of the patient as a reference model, not only focusing on the symptomatology of the specific pathology, but also looking at its interaction with the microbiota and how it may be influencing it.
- Encourage professional stimulation through continuing education and research.





## Specific Objectives

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- Know the mother-infant Symbiosis.
- Understand the factors influencing the Intestinal Microbiota of the mother in the gestational stage and at the time of delivery.
- Understand the influence of the type of delivery on the Microbiota of the neonatal.
- Understand the influence of the type of breastfeeding on the infant's Microbiota.
- Know the clinical applications of Probiotics and Prebiotics in the pediatric patient.
- Understand the Influence of Antibiotic and other Psychotropic treatment on the infant's Microbiota.
- Delve into the current lines of research on the subject.

*Update your knowledge through  
the Microbiota in Pediatrics for  
Nutritionists program.*

# 03

# Course Management

The program's teaching staff includes leading specialists in Human Microbiota and other related areas, who bring their years of work experience to this training program. In addition, other specialists of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary manner. All this, with the aim of providing nutritionists with the most complete information and contents of the educational panorama so that they can practice their profession with greater guarantees of success and care for pediatric patients, offering them tailored food plans and having a deeper knowledge of the functioning of their Microbiota.







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*Learn from reference professionals, the latest advances in procedures in the field of Microbiota in Pediatrics”*



## Management



### Dr. Fernández Montalvo, Mª Ángeles

- ♦ Degree in Biochemistry from the University of Valencia.
- ♦ Specialist Degree in Nutrition, Dietetics and Diet Therapy.
- ♦ Expert in Microbiological Food Analysis.
- ♦ Expert in Nutrition, Food and Cancer. Prevention and Treatment.
- ♦ Expert in Vegetarian, Clinical and Sports Nutrition.
- ♦ Specialist in food intolerances and the study of the Intestinal Microbiota.
- ♦ Numerous courses on Intestinal Microbiota, methods of analysis and applications.
- ♦ Diploma in Natural and Orthomolecular Medicine.
- ♦ Expert in the current use of Nutricosmetics and Nutraceuticals in general.
- ♦ Expert in point-of-sale management in Pharmacies and Parapharmacies.
- ♦ Member of the Spanish Society of Probiotics and Prebiotics (SEPyP).
- ♦ Member of the Spanish Society of Dietetics (SEDCA).
- ♦ Member of the Spanish Society of Nutrition (SEÑ).

## Professors

### Dr. Lombó Burgos, Felipe

- ♦ Doctor in Biology from the University of Oviedo.
- ♦ Professor at the university.

### Dr. López López, Aranzazu

- ♦ Ph.D. in Biological Sciences
- ♦ Researcher in oral microbiology at FISABIO foundation.
- ♦ Public Health Research Center of Valencia.

### Dr. Méndez García, Celia

- ♦ PhD in Microbiology from the University of Oviedo
- ♦ Research at Novartis Laboratories (Boston)

### Dr. Gonzalez Rodríguez, Silvia P

- ♦ PhD in Medicine and Surgery from the University of Alcalá de Henares. Gynecology Specialist.
- ♦ Medical Subdirector, Research Coordinator and Clinical Chief of the Menopause and Osteoporosis Unit at the Velázquez Medical Cabinet (Madrid).

### Dr. Álvarez García, Verónica

- ♦ Degree in Medicine.
- ♦ Digestive system specialist at the Central Hospital of Asturias (HUCA).

### Dr. Solís Sánchez, Gonzalo

- ♦ Neonatologist of the Central University Hospital of Asturias (HUCA).
- ♦ Researcher, Associate Professor of the University of Oviedo.

### Dr. Suárez Rodríguez, Marta

- ♦ Neonatologist of the Central University Hospital of Asturias (HUCA).
- ♦ Researcher and Professor of the Master's Degree in Early Care and the Master's Degree in Critical Care Nursing at the University of Oviedo and other training courses.

### Dr. Díaz Martín, Juan José

- ♦ Pediatric gastroenterologist at the Central Hospital of Asturias (HUCA).
- ♦ Member of the Spanish Society of Pediatric Gastroenterology, Hepatology and Nutrition.
- ♦ Associate Professor of Pediatrics at the University of Oviedo

### Dr. Fernández Madera, Juan José

- ♦ Degree in Medicine.
- ♦ Specialist in Allergology and Clinical Immunology.
- ♦ Specialist in Sports Medicine.

# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best hospitals and universities in the country, aware of the relevance of current training to prevent, detect and intervene in those pathologies related to alterations in the human Microbiota, and committed to quality teaching through new educational technologies. All this, with the objective of training nutritionists much more competent and prepared to design food plans that help and support the microbiome of pediatric patients.





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*This Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists contains the most complete and up-to-date scientific program on the market”*

## Module 1. Microbiota in Neonatology and Pediatrics

- 1.1. Mother-Child Symbiosis.
- 1.2. Influencing Factors on the Intestinal Microbiota of the Mother during Pregnancy and during Birth. Influence of the Type of Delivery on the Microbiota of the Neonate.
- 1.3. Type and Duration of Breastfeeding, Influence on the Infant's Microbiota.
  - 1.3.1. Breast Milk: Composition of the Microbiota of Breast Milk. Importance of Breastfeeding on the Microbiota of the Neonate.
  - 1.3.2. Artificial Breastfeeding. Use of Probiotics and Prebiotics in Infant Milk Formulas.
- 1.4. Clinical Applications of Probiotics and Prebiotics in Pediatric Patients.
  - 1.4.1. Digestive Diseases: Functional Digestive Disorders, Diarrhea, Necrotizing Enterocolitis. Intolerances.
  - 1.4.2. Non-Digestive Diseases: Respiratory and ENT, Atopic Diseases, Metabolic Diseases. Allergies.
- 1.5. Influence of Antibiotic and other Psychotropic Treatment on the Microbiota of the Infant.
- 1.6. Current Lines of Research.







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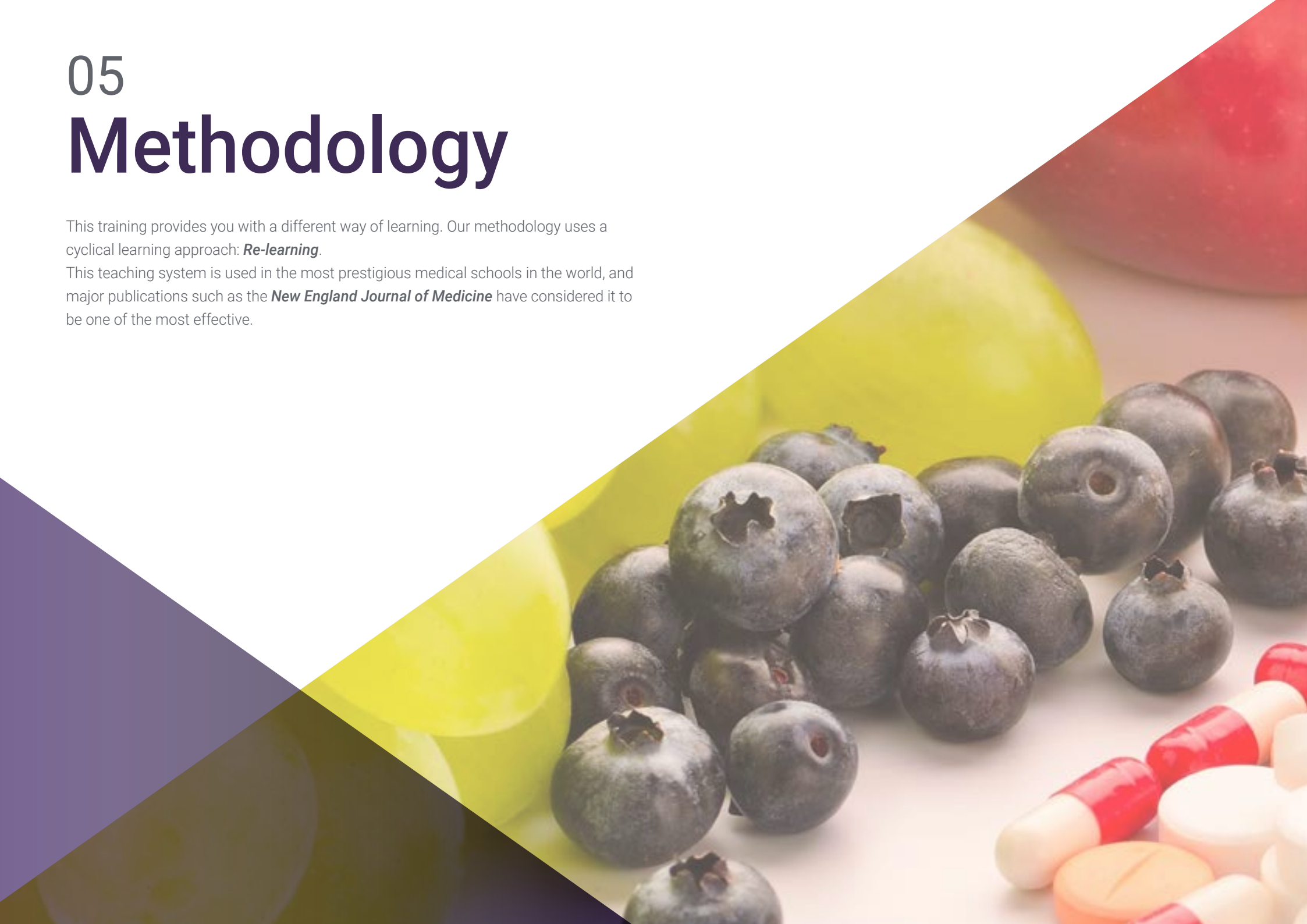
*A unique, key and decisive experience to boost your professional development”*

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 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.



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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. 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 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, 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 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 & 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

The **Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists** guarantees you, in addition to the most rigorous and up-to-date training, access to a certificate issued by **TECH Technological University**.





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*Successfully complete this training and receive your certificate without the hassle of travel or paperwork”*



This **Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists** contains the most complete and up-to-date scientific program on the market.

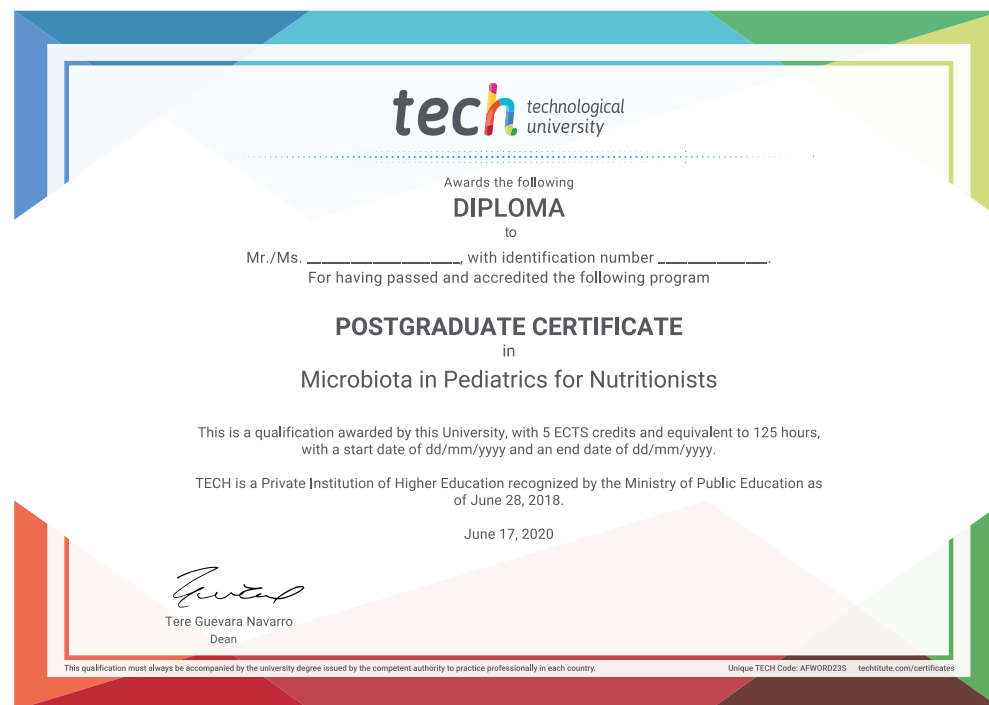
After the student has passed the evaluations, they will receive their corresponding Postgraduate Certificate issued by **TECH Technological University via tracked delivery**.

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

Title: Postgraduate Certificate in Microbiota in Pediatrics for Nutritionists

ECTS: 5

Nº Hours: 125



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

development languages

virtual classroom

**tech** technological  
university

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