



Postgraduate Diploma

Respiratory Microbiota and Allergies

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

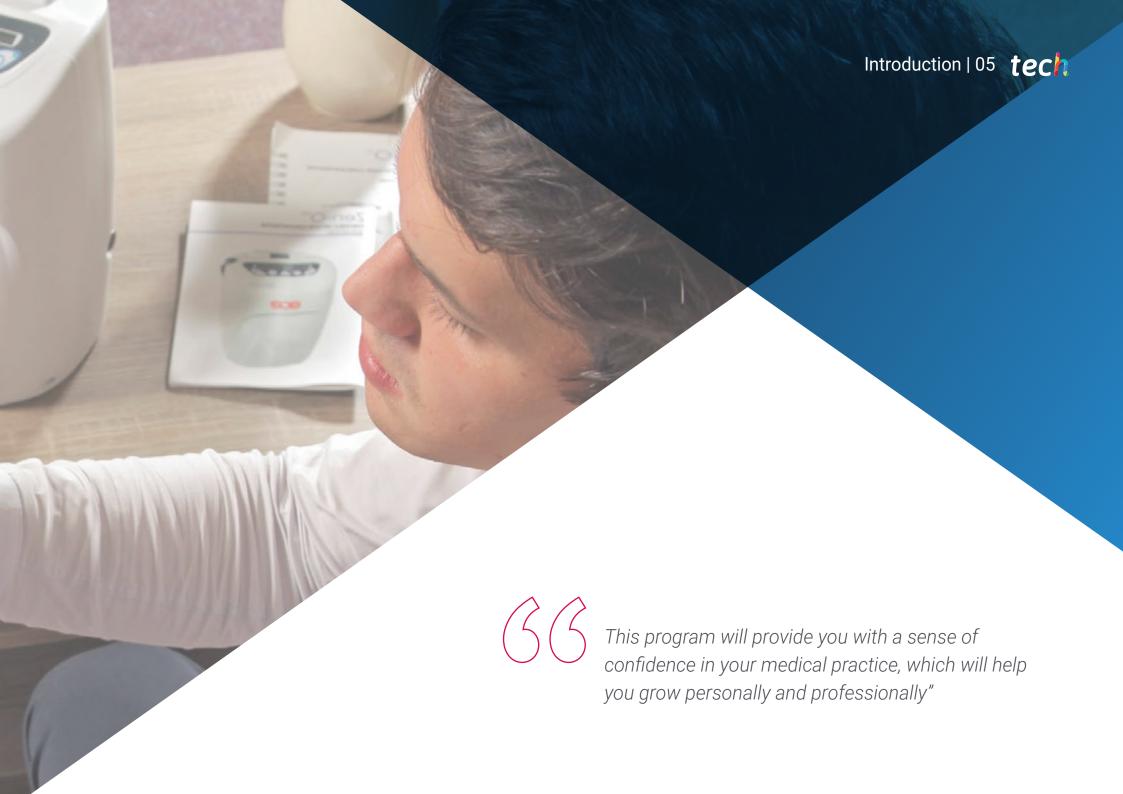
Website: www.techtitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-respiratory-microbiota-allergies

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tech 06 | Introduction

Numerous pieces of scientific evidence have implicated the intestinal microbiome and its metabolic potential in 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 it is also necessary to have a "healthy" microbiota.

Our microbiota undergoes changes as a consequence of the influence of multiple factors, diet, lifestyle, pharmacological treatments etc., generating alterations in this bacterial ecosystem. This abnormal 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 Diploma provides easy access to information and interest among professionals on topics related to the microbiota, its eubiosis and dysbiosis and the problems related to them.

Also, during the course, the use of probiotics and prebiotics will be discussed in depth, as well as the growing market launch of new products with very specific strains for very specific problems and diseases related to the respiratory system.

This will allow physiotherapy professionals to get up to date with all the scientific advances in this regard, to offer the patient more accurate information on the subject, guiding them to recover and maintain that bacterial eubiosis as a means to achieve a good state of health, in addition to collaborating in a positive way with the recommended medical treatment.

This **Postgraduate Diploma in Respiratory Microbiota and Allergies** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Development of case studies presented by experts in Respiratory Microbiota and Allergies
- The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- Lastest information on Respiratory Microbiota and Allergies
- It contains practical exercises where the self-evaluation process can be carried out to improve learning
- Special emphasis on innovative methodologies in Respiratory Microbiota and Allergies
- All of this will be complemented by 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





This Postgraduate Diploma is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge of Respiratory Microbiota and Allergies, you will obtain a Postgraduate Diploma from TECH Technological University"

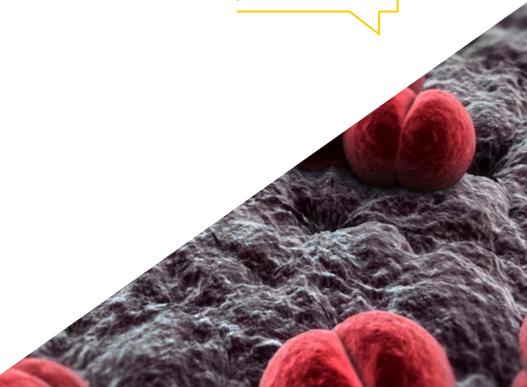
Its teaching staff includes professionals from the field of physiotherapy, who bring to this program the experience of their work, as well as renowned specialists from leading societies and prestigious universities.

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 program to train in real situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of Respiratory Microbiota and Allergies with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge with this University Expert course.

Make the most of the opportunity to learn about the latest advances in Respiratory Microbiota and Allergies and improve your patient care.





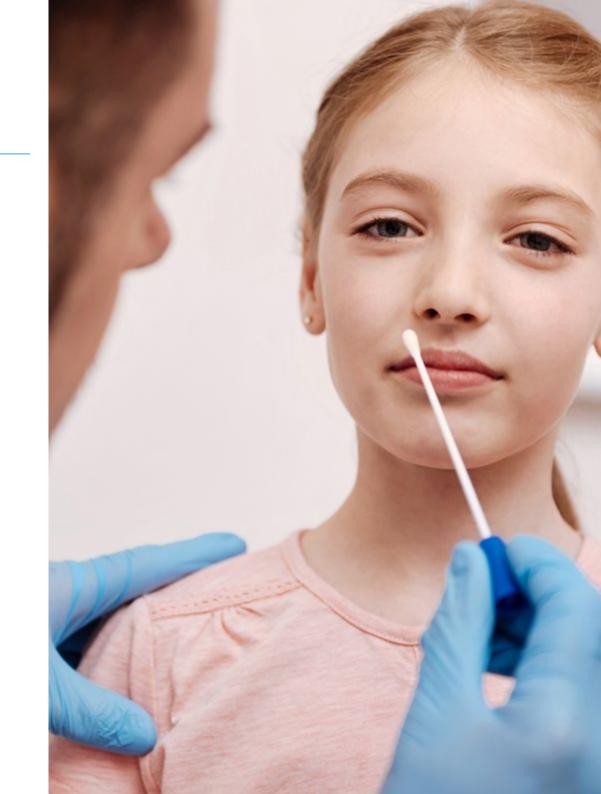


tech 10 | Objectives



General Objectives

- This Postgraduate Certificate meets a need of today's society, a quality and upto-date training that allows the use of microbiological therapy as a preventive or therapeutic tool for the maintenance of health
- Offer a complete and broad vision of the current situation in the area of the Human Microbiota, in its widest 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 scientific evidence how the microbiota and its interaction with many non-digestive pathologies of autoimmune nature or its relationship with the dysregulation of the immune system, disease prevention and as support for other medical treatments is currently being given a privileged position
- 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





Module 1. Oral Microbiota and Respiratory Tract

- Understand the structure of oral ecosystems
- Know the causes of alterations of the oral microbial ecosystem, oral dysbiosis, and its relationship with different oral disease states
- Know the structure of the respiratory tract and composition of the microbiota and microbiome
- Understand why the alteration of the microbiota of the respiratory tract occurs and its relationship with the different diseases of the respiratory tract
- Know the correct way to carry out a therapeutic manipulation of the microbiome of the oral cavity in prevention and treatment of diseases related to it
- Know the correct way to carry out a therapeutic manipulation of the microbiome of the respiratory tract in the prevention and treatment of diseases related to it
- Delve into the current lines of research related to the oral microbiota and its applications within a physiotherapy approach

Module 2. Microbiota and the Immune System

- Know the immune system physiology
- Understand the implication of nutrition and lifestyle and their interaction with the immune system and the Microbiota
- Know the bidirectional relationship between Microbiota and the neuroimmunoendocrine system
- Understand the involvement of the Microbiota in the triggering of nervous system diseases such as anxiety, depression, schizophrenia and others.
- Understand the functioning of the gut-brain microbiota
- Deepen in the current lines of research on the subject

Module 3. Relationship Between Intolerances/Allergies and Microbiota

- Know the reasons that cause changes in the microbiota in patients with food exclusion diets: Eosinophilic Esophagitis (EoE)
- Delve into the alteration and recovery of the intestinal microbiota in patients with gluten intolerance and celiac disease
- Know the role of probiotics in this sense
- Delve into the current lines of research.



Take the opportunity and take the step to get up to date on the latest developments in Respiratory Microbiota and Allergies."





tech 14 | Course Management

Guest Director

DOCUMENTO: CC 1018489605
USUARIO: GUERRA NARANJO LEIDY KARIN
PROGRAMA: CE
AUTORIZACIÓN No. 233006066236192
SERVICIO: CONSULTA CONTROL GINECOL
FECHA Y HORA CITA: 20231102 - 04:00 p.m.
MÉDICO:

JASSER REEMBERTOANILLO ANILLO DIRECCIÓN:

AC 134 7 B 83 P11 CS 03 TELÉFONO: 4285088

TOTAL:\$ 4000 EFECTIVO:\$ 50000 CAMBIO:\$ 46000

Dr. Sánchez Romero, María Isabel

- · Area Specialist in the Microbiology Department of the Puerta de Hierro University Hospital, Madrid.
- Doctor in Medicine and Surgery from the University of Salamanca (2003) with the qualification of outstanding cum laude
- Degree in Medicine and Surgery from the University of Salamanca.
- Medical Specialist in Clinical Microbiology and Parasitology
- · Member of the Spanish Society of Infectious Diseases and Clinical Microbiology.
- Technical Secretary of the Madrid Society of Clinical Microbiology

Electiones Information A CERTIFICADO ELECTORAL ELECCIONES 29 DE OCTUBRE DE 20 BOGOTA D.C. Departamento LIAGA Puesto de Votación Cédula No. 1018 48 4 COS Nombres y Apostos Leval Facilina Gozana Maria 1534053685

Dr. Portero, María Francisca

- · Acting Head of the Microbiology Department of the Puerta de Hierro University Hospital, Madrid.
- · Doctorate in Medicine from the Autonomous University Madrid
- · Degree in Medicine and Surgery from the Autonomous University of Madrid.
- · Specialist in Clinical Microbiology and Parasitology, Puerta de Hierro University Hospital, Madrid.
- · Postgraduate in Clinical Management by Gaspar Casal Foundation.

Co-Direction



Ms. Fernández Montalvo, María 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)

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Professors

Ms. Alarcón Cavero, Teresa

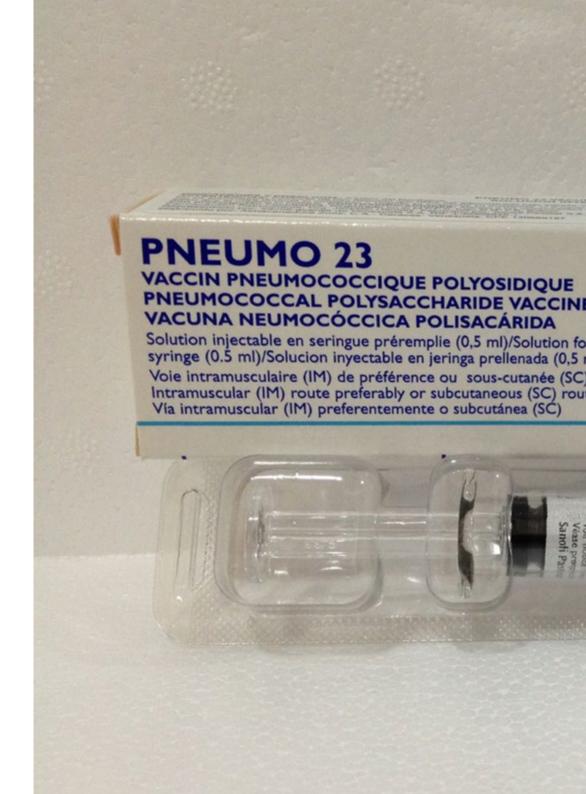
- * Specialist in the Microbiology Department at the La Princesa University Hospital.
- Degree in Biological Sciences with a major in Fundamental Biology from the Complutense University of Madrid.
- Master's Degree in Medical Microbiology from the Complutense University of Madrid.
- * Head of Group 52 of the Research Institute of the La Princesa Hospital.

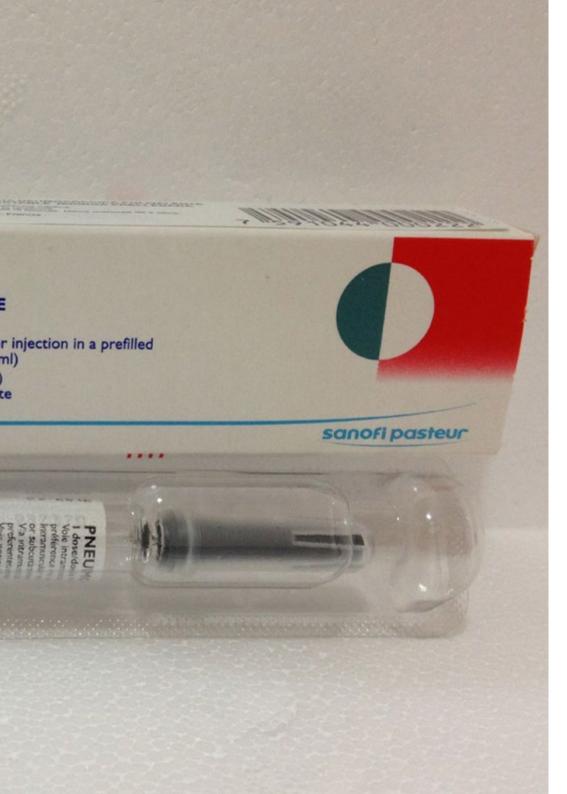
Dr. Muñoz Algarra, María

- Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid.
- Head of Patient Safety of the Microbiology Service in the H.U. Puerto de Hierro Hospital Majadahonda
- Doctorate in Pharmacy from the Complutense University of Madrid.
- Degree in Pharmacy from the University of Valencia
- Teaching collaborator at the School of Medicine in the subject of Microbiology at the Autonomous University of Madrid

Dr. López Dosil, Marcos

- Specialist Physician of the Microbiology and Parasitology Department of the Hospital de Móstoles
- Degree in Medicine from the University of Santiago de Compostela
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University
- Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- Expert in Tropical Medicine from the Autonomous University Madrid





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Anel Pedroche, Jorge

- Facultative Area Specialist. Microbiology Department. Puerta de Hierro University Hospital.
- Degree in Pharmacy from the Complutense University of Madrid.
- Course in Interactive Sessions on Hospital Antibiotherapy by MSD
- Updating course on infection in hematologic patients by Puerta del Hierro Hospital.
- Attendance at the XXII Congress of the Spanish Society of Infectious Diseases and Clinical Microbiology.

Dr. Méndez García, Celia

- Doctorate in Microbiology from the University of Oviedo.
- Research at Novartis Laboratories (Boston)

Narbona López, Eduardo

- Professor of Pediatrics, University of Granada, Spain.
- Neonatal Unit, San Cecilio University Hospital, Madrid.

Dr. Rioseras de Bustos, Beatriz

- Degree in Biology Medicine, University of Oviedo
- Master's Degree in Neuroscience Research. University of Oviedo
- Doctorate from the University of Oviedo. "Streptomyces development: regulation and industrial applications."
- Publications in the field of microbiology
- Participation in various conferences in the field of microbiology.
- Immunology Resident at HUCA

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Ms. Rodríguez Fernández, Carolina

• Degree in Biology from the University of Oviedo

Uberos Fernández, José

- Associate Professor of Pediatrics, University of Granada
- * Assistant Professor. Faculty of Medicine. University of Granada
- Neonatal Intensive Care Unit Clinical Assistant. San Cecilio Clinical Hospital, Granada (Spain)
- Vocal Bioethics Research Committee of the Province of Granada (Spain)
- Coeditor of the Signs and Symptoms Journal
- Professor Antonio Galdo Award. Society of Pediatrics of Eastern Andalusia. For the article entitled: Analysis of nutritional intake in very low birth weight infants and its impact on the severity of bronchopulmonary dysplasia and other comorbidities
- Editor of the Journal of the Pediatric Society of Eastern Andalusia (Bol. SPAO)
- President of the Scientific Committee of the XVIII Congress of Pediatric Societies of Eastern Andalusia, Extremadura, and Western Spain. Granada
- Member of the Organizing Committee of the XIV Congress of the Spanish Society of Adolescent Medicine, Granada
- Member of the Organizing Committee of the XIV Congress of the Spanish Society of Adolescent Medicine.
- * Spanish Secretary of the XX Congress of Social Pediatrics, Granada

Ms. Álvarez García, Verónica

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

Ms. Bueno García, Eva

* Researcher at the Immunology Department of the Central University Hospital of Asturias.

Dr. Solís Sánchez, Gonzalo

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

Dr. Alonso Arias, Rebeca

- Degree in Biology from the University of Oviedo
- * Doctorate in Biological Sciences from the Complutense University of Madrid.
- * Specialist Immunology Physician at the Central University Hospital of Asturias.
- Head of the Immunosenescence research group of the Central University Hospital of Asturias Immunology Service.
- Numerous publications in international scientific journals
- * Research work on the association between the microbiota and the immune system
- 1st National Award for Research in Sports Medicine (2 occasions)

Fernández Madera, Juan

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

Dr. Gabaldon Estevani, Toni

- PhD in Biology, researcher at Centre for Genomic Regulation | CRG Bioinformatics and Genomics
- ICREA Research Professor and Group Leader of the Comparative Genomics Laboratory
- * Co-Founder and Scientific Advisor (CSO) Microomics SL

Dr. López López, Aranzazu

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

Ms. Suárez Rodríguez, Marta

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

Ms. Verdú López, Patricia

- 2015 2016: Professional Master's Degree in Esthetic and Anti-Aging Medicine at the Complutense University of Madrid
- 2007-2009: acquisition of research proficiency, PhD courses in "Advances in Traumatology, Sports Medicine, and Wound Care", "Advances in Asthma and Allergies" at the University of Las Palmas of Gran Canaria
- * 2005 2009: Specialty of Allergology at the University Hospital Dr. Negrín in Las Palmas of Gran Canaria
- 1998 2004: Degree in Medicine from the University of Oviedo

Dr. Gonzalez Rodríguez, Silvia P

- Doctor of Medicine and Surgery, specialized in Gynecology
- Medical Subdirector
- Research Coordinator and Clinical Chief of the Menopause and Osteoporosis Unit at the Velázquez Medical Cabinet (Madrid).

Dr. Lombó Burgos, Felipe

- Doctorate in Biology from the University of Oviedo and full professor at the University of Oviedo.
- Research Unit "Biotechnology in Nutraceuticals and Bioactive Compounds-BIONUC"
- Area of Microbiology, Department of Functional Biology. Faculty of Medicine, University of Oviedo.

López Vázquez, Antonio

- Specialist in Immunology
- Central University Hospital of Asturias

Dr. Lopez Martinez, Rocio

- Degree in Biochemistry from the University of Murcia
- Professional Master's Degree in Bioinformatics and Biostatistics from the Catalan Open University (UOC) and the University of Barcelona
- Resident Internal Biologist of Clinical Immunology at the Central University Hospital of Asturias

Losa Domínguez, Fernando

- Obstetrician-Gynecologist and Maternologist
- Expert in Menopause certified by the AEEM (Spanish Association for the Study of Menopause).
- Expert in Gynecoesthetics from the University of Barcelona.



Leading professionals in the field have come together to teach you the latest advances in and train you to excel in your profession"





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Module 1. Oral Microbiota and Respiratory Tract

- 1.1. Structure and Oral Ecosystems
 - 1.1.1. Main Ecosystems That are Differentiated in the Oral Cavity
 - 1.1.2. Characteristics and Composition of Each of Them. Nostrils, Nasopharynx and Oropharynx
- 1.2. Alterations of the Oral Microbial Ecosystem: Oral Dysbiosis. Relationship with Different Oral Disease States
 - 1.2.1. Cavities
 - 1.2.2. Halitosis
 - 1.2.3. Periodontal and Gingival Diseases
 - 1.2.4. Peri-Implant Diseases
 - 1.2.5. Other Infectious Diseases: Candida Albicans
- 1.3. Influence of External Agents in Oral Eubiosis and Dysbiosis. Hygiene
- 1.4. Structure of the Respiratory Tract and Composition of the Microbiota and Microbiome of Both the Upper Respiratory Tract (Nasopharynx, Middle Ear, Sinuses and Tonsils) and the Lower Respiratory Tract (Trachea, Lungs, Bronchi, Bronchioles and Alveoli)
- 1.5. Factors that Regulate the Respiratory Microbiota: Microbial Immigration, Microbial Elimination and Reproduction Rates
- 1.6. Alteration of the Respiratory Tract Microbiota and its Relationship with Different Respiratory Tract Diseases
- 1.7. Therapeutic Manipulation of the Microbiome of the Oral Cavity in Prevention and Treatment of Diseases Related to it
- 1.8. Therapeutic Manipulation of the Microbiome of the Respiratory Tract in Prevention and Treatment of Related Diseases
- 1.9. Current Lines of Research and Clinical Applications





Structure and Content | 23 tech

Module 2. Microbiota and Immune System

- Immune System Physiology
- Nutrition and Lifestyle: Interaction with the Immune System and the Microbiota
- Functional Foods (Probiotics and Prebiotics), Nutraceuticals, and Immune System
- Bidirectional Relationship Between Microbiota and Neuroimmunoendocrine System
- Microbiota, Immunity, and Nervous System Disorders: Anxiety, Depression, Autism, Schizophrenia, or Alzheimer's Dsease
- The Gut-Microbiota-Brain Axis
- Current Lines of Research

Module 3. Relationship Between Intolerances/Allergies and Microbiota

- Microbiota Changes in Patients on Food Exclusion Diets: Eosinophilic Esophagitis (EoE)
- Microbiota Changes in Patients on Food Exclusion Diets: Dairy Intolerance (Lactose, Milk Proteins: Caseins, Albumins, etc.)
- Alteration and Recovery of the Intestinal Microbiota in Patients with Gluten Intolerance and Celiac Disease. Role of Probiotics
- Microbiota and Biogenic Amines
- Current Lines of Research

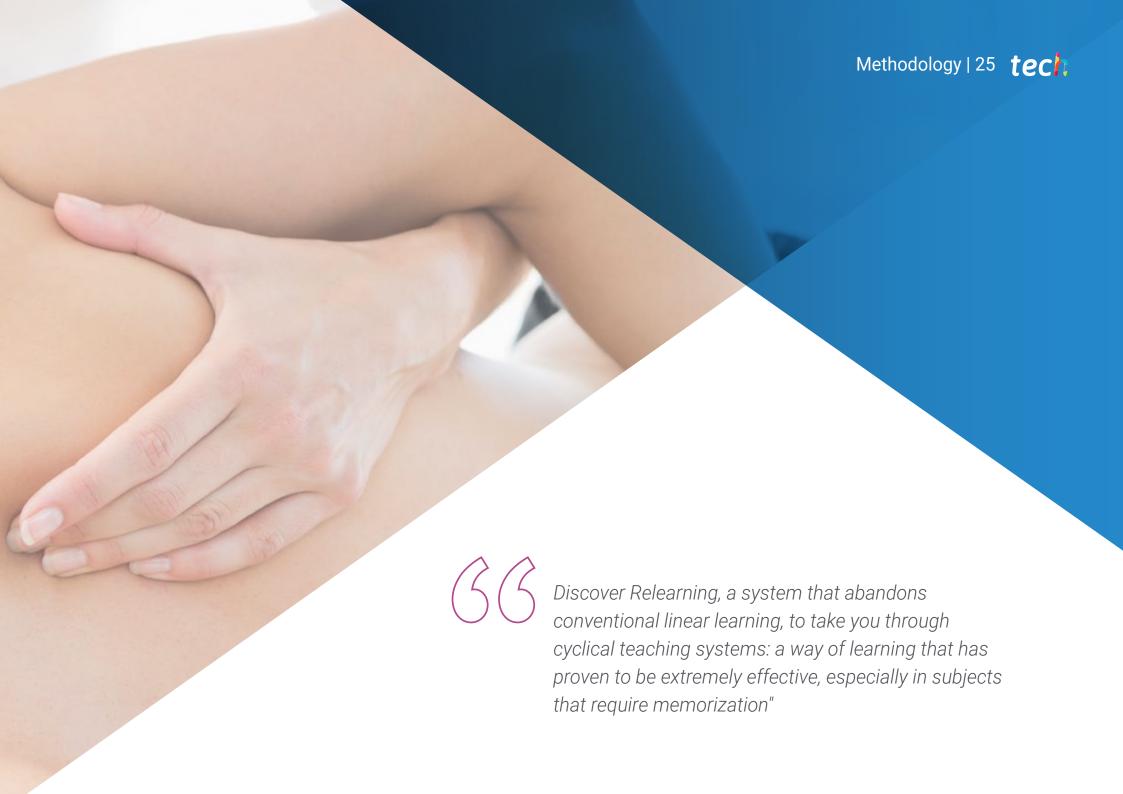


A unique, key, and decisive training experience to boost your professional development"



This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, 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.



tech 26 | Methodology

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

With TECH you will 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 power 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 physiotherapy 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. Physiotherapists/kinesiologists 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 physiotherapist/kinesiologist to better integrate into the real world.
- 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.





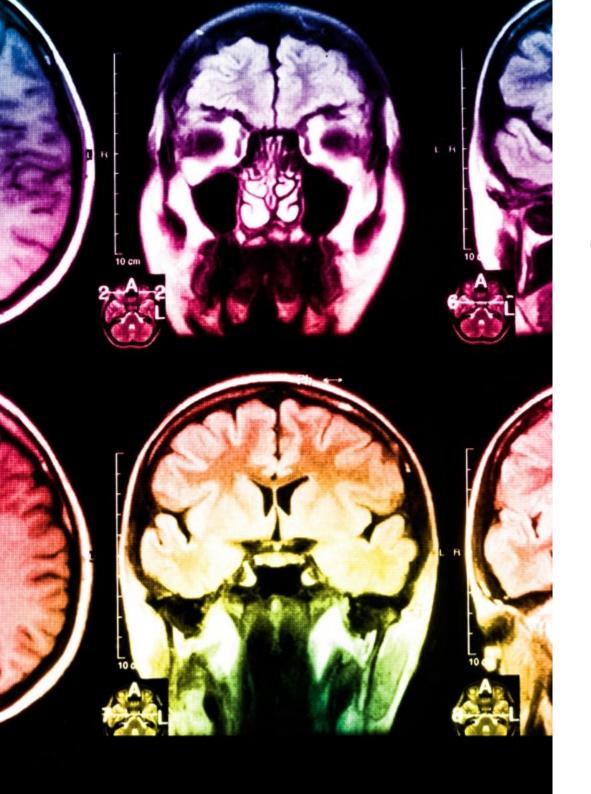
Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of cases.

The physiotherapist/kinesiologist 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.





Methodology | 29 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning 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 for success.

In our program, learning is not a linear process, but rather a spiral (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.

This program offers the best educational material, prepared with professionals 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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Physiotherapy Techniques and Procedures on Video

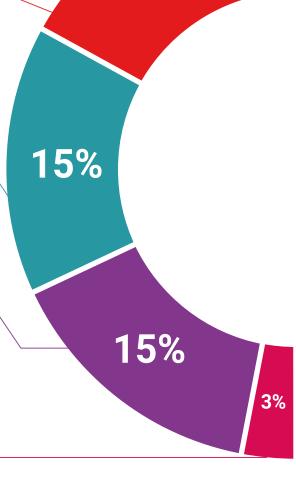
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

The TECH team presents 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 and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, 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 students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts.

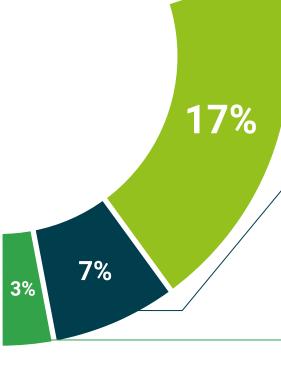
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.





20%





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This **Postgraduate Diploma in Respiratory Microbiota and Allergies** 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 Diploma, issued by TECH Technological University via tracked delivery*.

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

Title: Postgraduate Diploma in Respiratory Microbiota and Allergies
Official N° of Hours: **450 h.**



^{*}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.



Postgraduate Diploma

Respiratory Microbiota and Allergies

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

