



# Postgraduate Certificate

# Genitourinary Microbiota

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We bsite: www.techtitute.com/in/physiotherapy/postgraduate-certificate/genitour in ary-microbiota

# Index

p. 28

Certificate



Scientific research in the field of microbiota has been booming in recent decades, aimed both at the study of its characteristics and its impact on our health. In each one of the different areas in our body, such as the skin, mucous membranes, repiratory tract, vagina or digestive tract, we can find complex microbial ecosystems that are adapted to the particularities of each area. Of all of them, one of those that requires a deeper knowledge is the one found in the urinary tract and genitals, due to its richness and complex composition. Aware of this, TECH professionals have designed this program that aims to help physiotherapists to know all aspects of the Genitourinary Microbiome. Thus, these professionals will be able to understand the reasons for the appearance of certain skin pathologies, offering a higher rate of positive results to their patients through physical therapy.



# 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.

The human microbiota undergoes changes as a consequence of the influence of multiple factors such as diet, lifestyle, pharmacological treatments, generating alterations in this bacterial ecosystem and the abnormal interaction that the organism could have with it. It can be related to certain processes such as: 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.

This Postgraduate Certificate in Genitourinary Microbiota focuses on providing physiotherapists with the necessary information on issues related to the genital and urinary microbiota, its Eubiosis and Dysbiosis and the problems related to them. This will make it possible to care for patients with problems of this type, offering them better quality therapeutic treatment, by having a much clearer idea of the state of their health.

In the same way, the use of Probiotics and Prebiotics and the growing market launch of new products with very specific strains for Genitourinary problems and diseases will also be addressed. All this content will enable nursing professionals to be prepared to offer effective solutions to patients with this type of pathologies and infections, knowing how to guide them so that they can recover and maintain their skin microbiota and, consequently, a good state of health.

All this, in a 100% online specialization, which will allow the physiotherapist to learn, while continuing to perform the rest of their personal and professional activities. In this way, ensuring that they are up to date with the latest advances in Genitourinary Microbiotics, without neglecting other things that are also very important in their daily life.

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

- Practical cases presented by experts in Genitourinary Microbiota
- 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
- Latest information on Genitourinary Microbiota
- It contains practical exercises where the self-evaluation process can be carried out to improve learning
- Special emphasis on innovative methodologies in Genitourinary Microbiota
- 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



TECH provides you with the latest knowledge on Genitourinary Microbiota so that you can become a successful physiotherapist"



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

The teaching staff of this program includes professionals from the field of medicine and physiotherapy, who bring to this training the experience of their work, in addition to renowned specialists from prestigious reference societies and 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 learning 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 throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in physiotherapy.

The Postgraduate Certificate will open the doors to a horizon of knowledge about Genitourinary Microbiota, and will allow you to position yourself as a successful physiotherapist.

This 100% online Postgraduate Certificate will allow you to combine your studies with your professional work while increasing your knowledge in this field.







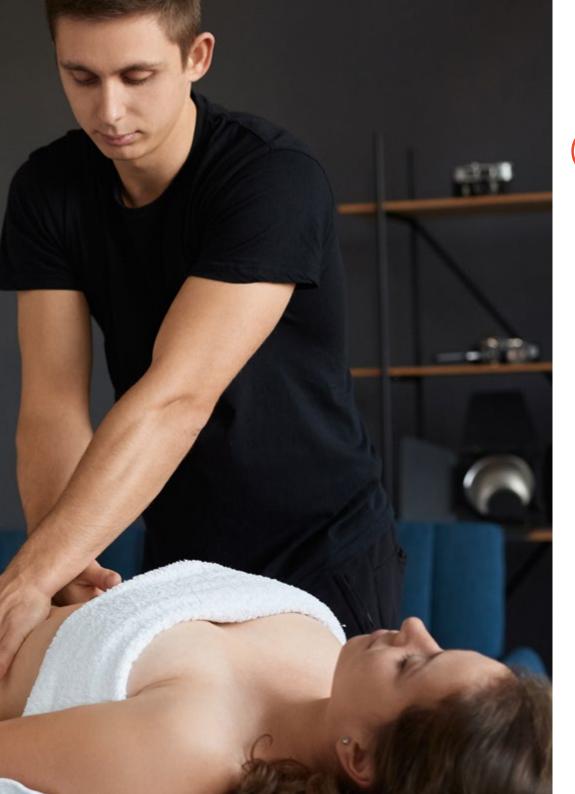
# tech 10 | Objectives



# **General Objectives**

- This Postgraduate Certificate meets 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 complete and wide vision of the current situation in the area of the Genitourinary 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 the backing of scientific evidence how the microbiota is in a privileged
  position based on its interaction with many non-digestive pathologies, those of
  autoimmune nature or its relationship with immune system dysregulation, disease
  prevention and as a support to other medical treatments
- 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 continuous education and research







# **Specific Objectives**

- Know the physiology of the genitourinary tract in men and women and the composition of its microbiota according to sex
- Deepen in the microorganisms causing genitourinary infections and their relationship with the alteration of the Microbiota
- Know the vaginal Microbiota and its modification with age
- Understand the factors that cause the alteration of vaginal homeostasis and its relationship with infectious pathologies
- Know how to use probiotics in the prevention of the main infections of the genitourinary tract: UTI (Cystitis/Urethritis), Prostatitis, Pyelonephritis, Vaginal infections, and infertility
- Delve into the current lines of research



Update your knowledge through the Postgraduate Certificate in Genitourinary Microbiota"





# tech 14 | Course Management

# Management



# 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

### **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

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

# Dr. Gonzalez Rodríguez, Silvia Pilar

- 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 at the Hospital Universitario Central de 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 Primary Care and the Master's Degree in Critical Care Nursing at the University of Oviedo and other various 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

# **Structure and Content**





# tech 18 | Structure and Content

# Module 1. Genitourinary Tract Microbiota

- 1.1. Physiology of the Genitourinary Tract in Men and Women. Microbial Composition of the Genitourinary Tract and its Differentiation by Sex
- 1.2. Microorganisms Causing Genitourinary Infections Relationship with the Alteration of the Microbiota
- 1.3. Vaginal Microbiota and its Modification with Age
- 1.4. Alteration of the Vaginal Homeostasis and its Relation with Infectious Pathologies
- 1.5. Probiotics in the Prevention of the Main Genitourinary Tract Infections: UTI (Cystitis/Urethritis), Prostatitis, Pyelonephritis, Vaginal infections, and Infertility
- 1.6. Current Lines of Research





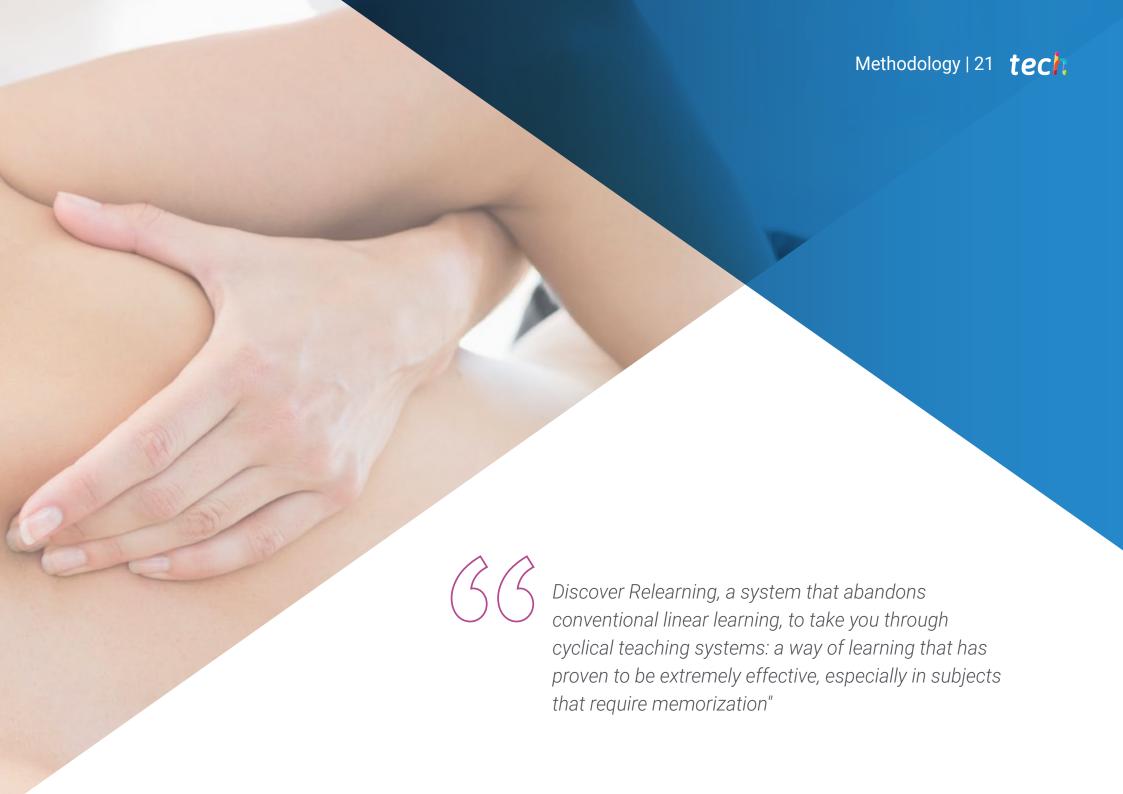


A unique, key, and decisive training experience to boost your professional development"



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.

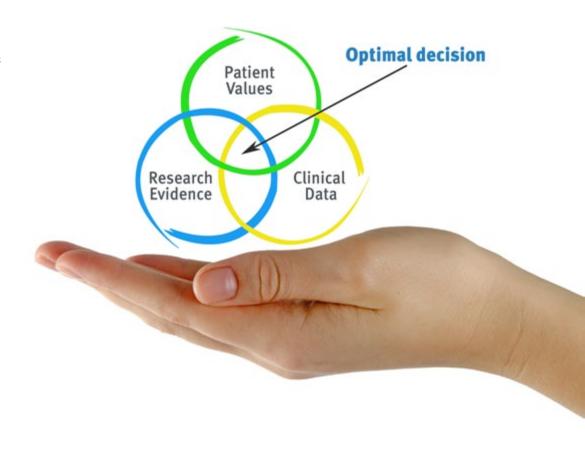


# tech 22 | Methodology

# 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.



# tech 24 | Methodology

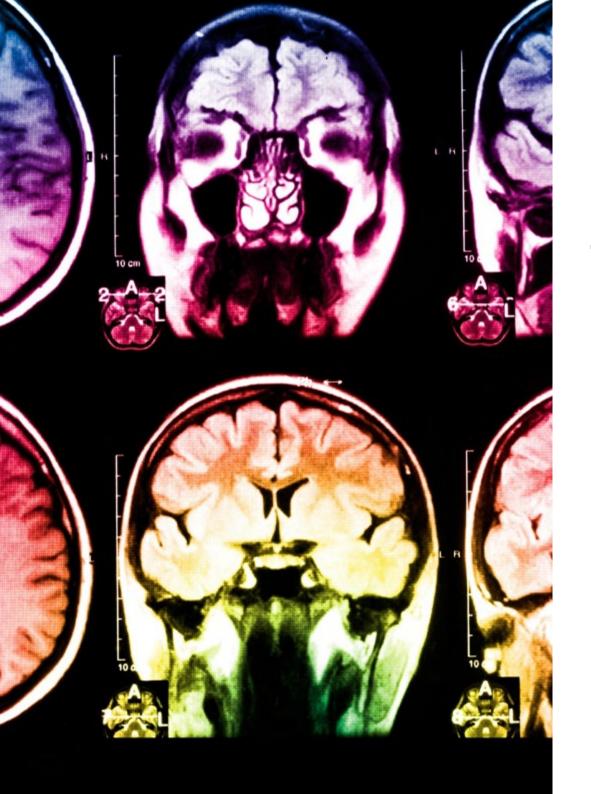
# Relearning Methodology

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 | 25 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.

# tech 26 | Methodology

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**

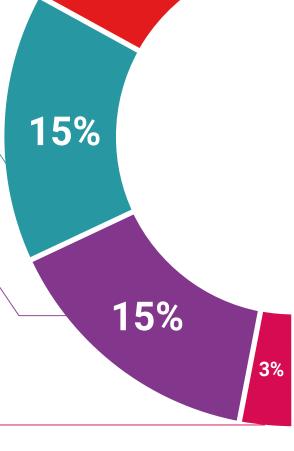
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can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



**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.

and direct way to achieve the highest degree of understanding.

### Classes



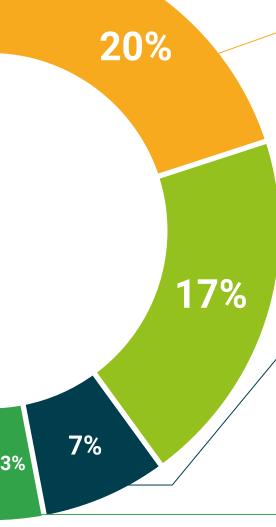
There is scientific evidence on the usefulness of learning by observing experts.

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.







# tech 30 | Certificate

This **Postgraduate Certificate in Genitourinary Microbiota** 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 certificate 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 Genitourinary Microbiota

Official No of Hours: 150 h.



in

### Genitourinary Microbiota

This is a qualification awarded by this University, 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



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

