





# Postgraduate Certificate

Skin Microbiota for Nutritionists

Course Modality: Online

Duration: 2 months.

Certificate: TECH Technological University

Website: www.techtitute.com/nutrition/postgraduate-certificate/skin-microbiota-nutritionists

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# tech 06 | Introduction

Numerous scientific evidences have demonstrated the implication of the skin microbiome in the appearance of various skin pathologies, giving rise to new therapeutic strategies to control and regulate these environments. The study of this ecosystem is a field of rapid scientific progress, and it is universally accepted that 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, diet, lifestyle, pharmacological treatments, generating alterations in this bacterial ecosystem and the abnormal interaction that the organism could have with it, is related to certain processes: allergic, 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 Skin Microbiotics focuses on providing nutritionists with the necessary information on the topics related to Skin Microbiota, its Eubiosis and Dysbiosis and the problems related to them. This Postgraduate Certificate in Skin Microbiotics focuses on providing nutritionists with the necessary information on the topics related to Skin Microbiota, its Eubiosis and Dysbiosis and the problems related to them.

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

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

- Development of case studies presented by experts in Skin Microbiota. 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.
- Skin Microbiota Developments
- It contains practical exercises where the self-evaluation process can be carried out to improve learning
- With special emphasis on innovative methodologies in Skin 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 Skin Microbiota so that you can become a successful Nutritionist"

# Introduction | 07 tech



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 Skin Microbiotics, you will obtain a certificate from TECH Technological University"

The program includes, in its teaching staff, professionals belonging to the field of medicine and nutrition, who bring to this training the experience of their work, in addition to recognized 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 training programmed to train in real situations.

The design of this Program focuses on Problem-Based Learning, by means of which the professional will have to try to solve the different situations of Professional Practice, which will be posed throughout the Program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced nutrition experts.

The Postgraduate Certificate allows you to exercise through simulated environments, which provide immersive learning programmed to train for real situations.

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





# tech 10 | Objectives



# **General Objectives**

- This Postgraduate Certificate fulfills 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 wide vision of the current situation in the area of skin
  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 to 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







# **Specific Objectives**

- Know the physiology of the skin and its microbial composition
- Understand the factors that regulate the type of bacterial flora in the skin: sweat glands, sebaceous glands, desquamation
- Delve into the factors that alter the ecology of the skin and the Microbiota.
- Know the cutaneous immune system
- Understand the factors that produce an alteration of the normal cutaneous microbiota (dysbiosis) and alteration of the barrier function.
- Know the triggered cutaneous pathologies: Psoriasis (Streptococcus pyogenes),
   Acne vulgaris, Atopic dermatitis, Rosacea
- Delve into the influence of the use of Probiotics in the prevention and treatment of different skin diseases
- Delve into the current lines of research



Update your knowledge through the program on Skin Microbiota for Nutritionists"

# 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 patients with skin problems, having a deeper knowledge of the functioning of their microbiota and the implication of this with food.





### International Guest Director

Dr. Harry Sokol is internationally recognized in the field of Gastroenterology for his research on the gut microbiota. With more than 2 decades of experience, he has established himself as a true scientific authority thanks to his numerous studies on the role of microorganisms in the human body and their impact on chronic inflammatory bowel diseases. In particular, his work has revolutionized medical understanding of this organ, often referred to as the "second brain."

Among Dr. Sokol's contributions, he and his team have opened a new line of advances on the bacterium Faecalibacterium prausnitzii. In turn, these studies have led to crucial discoveries about its anti-inflammatory effects, opening the door to revolutionary treatments.

In addition, the expert is distinguished by his commitment to the dissemination of knowledge, whether by teaching academic programs at the Sorbonne University or by publishing works such as the comic book The Extraordinary Powers of the Belly. His scientific publications appear continuously in world-renowned journals and he is invited to specialized congresses. At the same time, he carries out his clinical work at the Saint-Antoine Hospital (AP-HP/University Hospital Federation IMPEC/Sorbonne University), one of the most renowned hospitals in Europe.

On the other hand, Dr. Sokol began his medical studies at Paris Cité University, showing early on a strong interest in health research. A chance meeting with the eminent Professor Philippe Marteau led him to Gastroenterology and the enigmas of the Intestinal Microbiota. Throughout his career, he also broadened his horizons by training in the United States, at Harvard University, where he shared experiences with leading scientists. Upon his return to France, he founded his own team where he researches on Fecal Transplantation, offering state-of-the-art therapeutic innovations.



# Dr. Sokol, Harry

- Director of Microbiota, Gut and Inflammation at Sorbonne University, Paris, France
- Specialist Physician at the Gastroenterology Department of the Saint-Antoine Hospital (AP-HP), Paris, France
- Group Leader at the Institut Micalis (INRA)
- Coordinator of the Center of Microbiome Medicine of Paris FHU
- Founder of the pharmaceutical company Exeliom Biosciences (Nextbiotix)
- President of the Fecal Microbiota Transplantation Group
- Medical Specialist in different hospitals in Paris
- Doctorate in Microbiology at the Université Paris-Sud
- Postdoctoral Fellowship at the Massachusetts General Hospital, Harvard University Medical School
- Degree in Medicine, Hepatology and Gastroenterology at Université Paris Cité



Thanks to TECH, you will be able to learn with the best professionals in the world"

# tech 16 | Course Management

# 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

- D. 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 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 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 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.

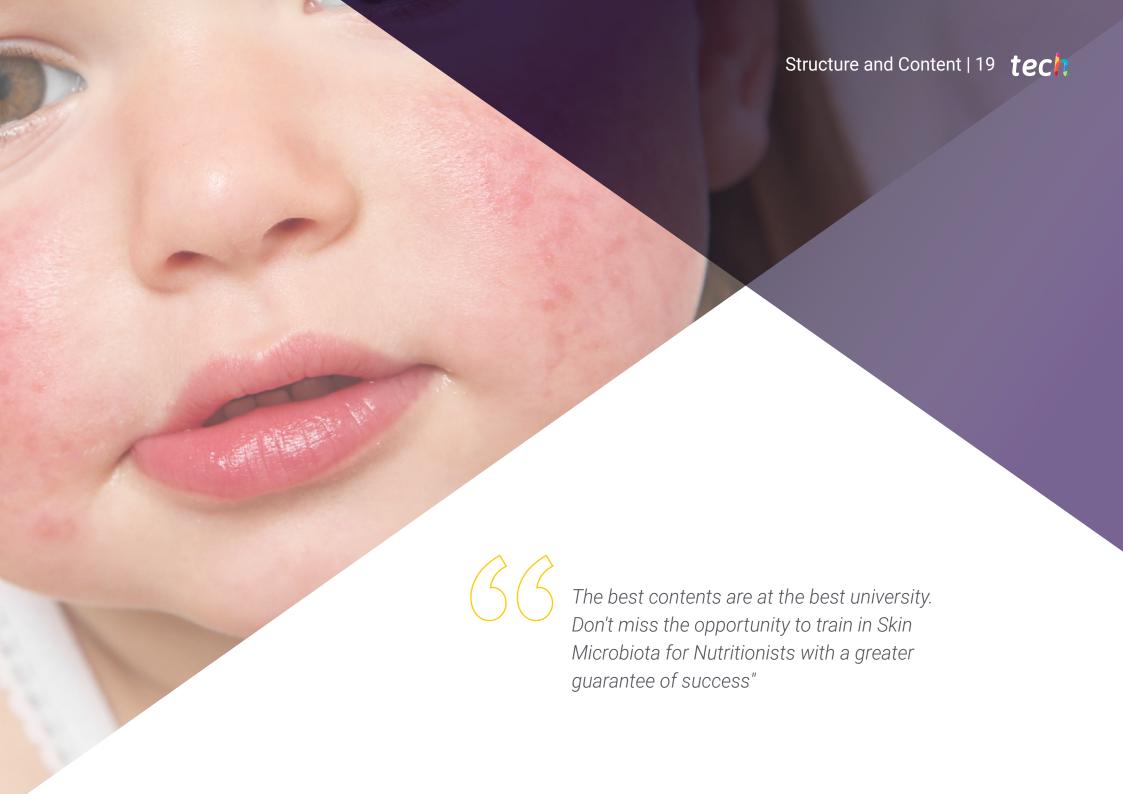
### Dr. Díaz Martín, Juan José

- 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

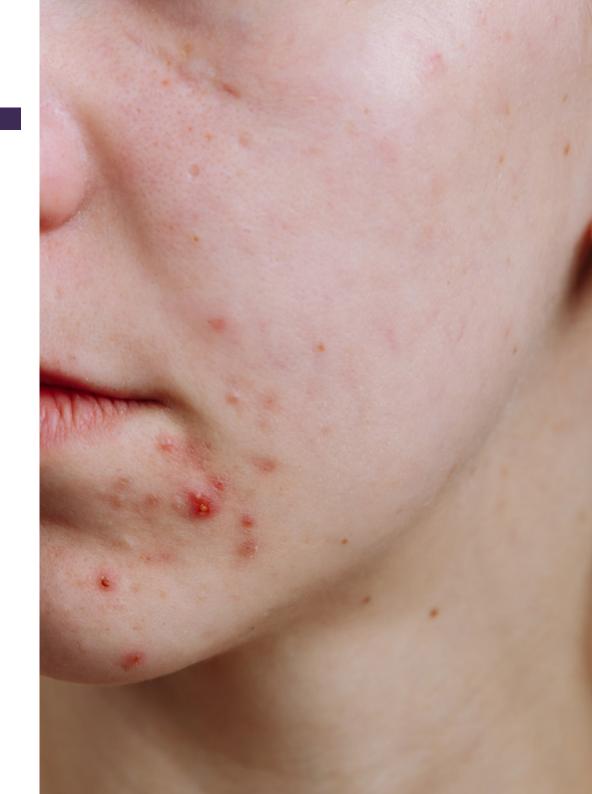




# tech 20 | Structure and Content

# Module 1. Skin Microbiota

- 1.1 Skin Physiology Microbial Composition of the Skin
- 1.2 Factors that regulate the type of Bacterial Flora in the Skin: Sweat Glands, Sebaceous Glands, Desquamation
  - 1.2.1. Factors that Alter the Ecology of the Skin and the Microbiota
- 1.3 Skin Immune System Epidermis; Essential Element of our Defences
  - 1.3. 1 Elements of the Skin Immune System: Cytokines, Keratinocytes, Dendritic Cells, Lymphocytes, Antimicrobial Peptides
  - 1.3. 2 Influence of the Skin Microbiota on the Skin Immune System Staphylococcus Epidermidis, Staphylococcus Aureus
- 1.4. Alteration of the normal cutaneous microbiota (dysbiosis) and alteration of the barrier function
- 1.5. Triggered Skin Diseases: Psoriasis (Streptococcus pyogenes), Acne vulgaris, Atopic dermatitis, Rosacea
- 1.6. Influence of the use of Probiotics in the Prevention and Treatment of Different Skin Diseases
- 1.7. Current Lines of Research

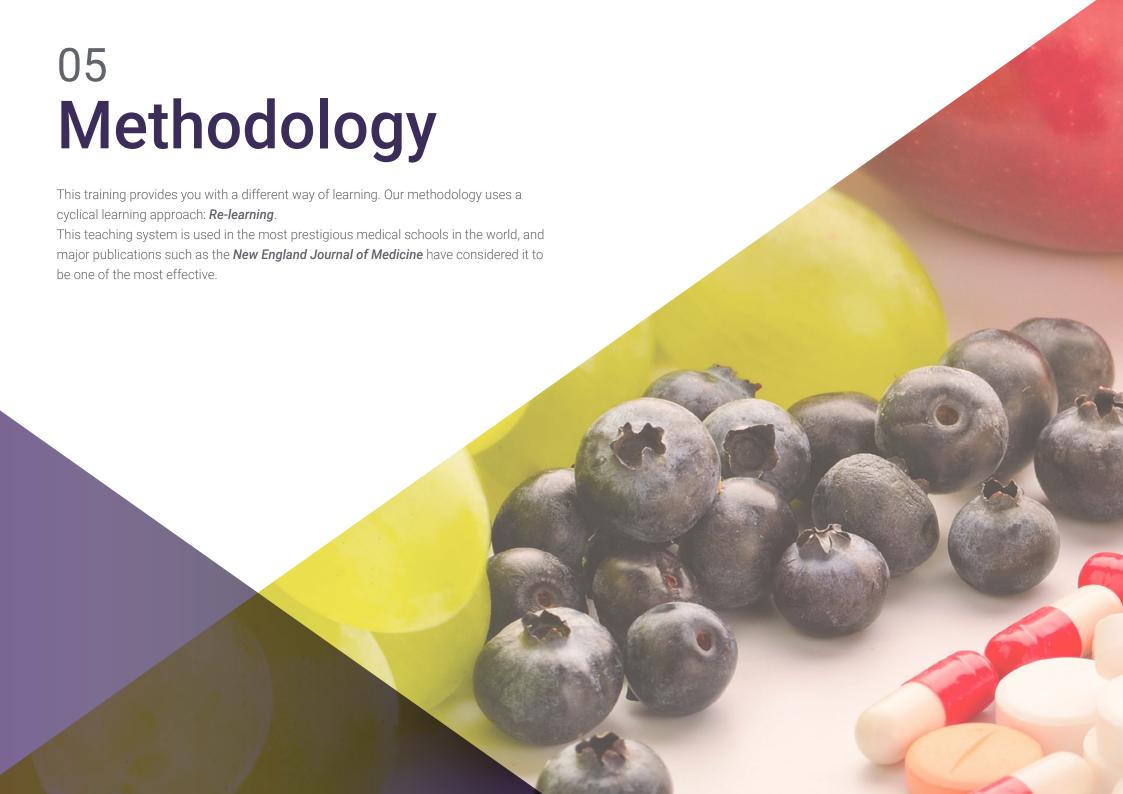












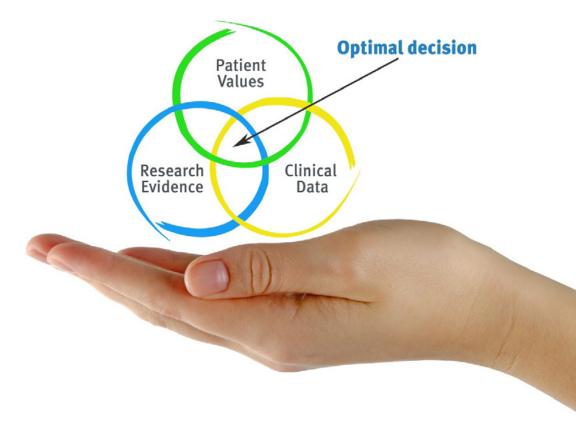


# tech 24 | Methodology

### 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:

- 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.



# tech 26 | Methodology

# 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.



# Methodology | 27 tech

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

With this methodology we have have trained more than 45,000 nutritionists with unprecedented success, in all clinical specialties regardless of the workload. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

In this program you will have access to the best educational material, prepared with you in mind:



### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



# **Nutrition Techniques and Procedures on Video**

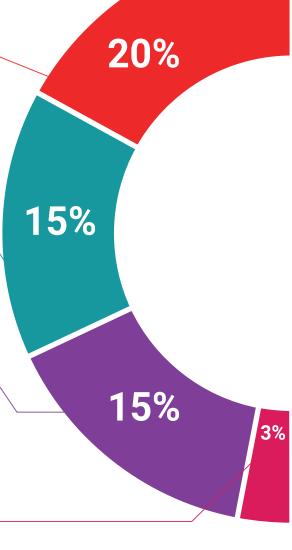
We introduce you to the latest techniques, the latest educational advances, and the forefront of current nutritional procedures and techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many 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 training 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.





# **Testing & Re-Testing**

understanding.

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.

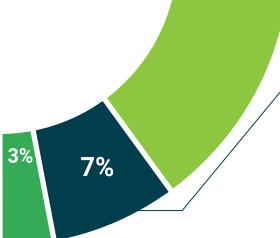


Learning from an expert strengthens knowledge and memory, and generates confidence in our difficult future decisions.

### **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.





17%





# tech 32 | Certificate

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

After passing the evaluations, the student will receive by mail with acknowledgment of receipt the corresponding **Certificate** issued by

# **TECH Technological University**.

The certificate issued by **TECH Technological University** will express the qualification obtained in the Postgraduate Certificate, and will meet the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: Postgraduate Certificate in Skin Microbiota for Nutritionists

ECTS: 6

Official Number of Hours: 150 hours.



# POSTGRADUATE CERTIFICATE

in

Skin Microbiota for Nutritionists

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

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each countries of the competent authority to practice professionally in each countries.

rique TECH Code: AFWORD23S techtitute.com/certificates

<sup>\*</sup>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.

technological university

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