

# Postgraduate Certificate

Mycobacteriosis and Infections  
Caused by Anaerobes and Parasites



## Postgraduate Certificate

### Mycobacteriosis and infections Caused by Anaerobes and Parasites

Course Modality: **Online**

Duration: **6 weeks**

Endorsed by: **TECH Technological University**

**5 ECTS Credits**

Hours **125 hours**.

Website: [www.techtute.com/medicine/postgraduate-certificate/mycobacteriosis-infections-caused-anaerobes-parasites](http://www.techtute.com/medicine/postgraduate-certificate/mycobacteriosis-infections-caused-anaerobes-parasites)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

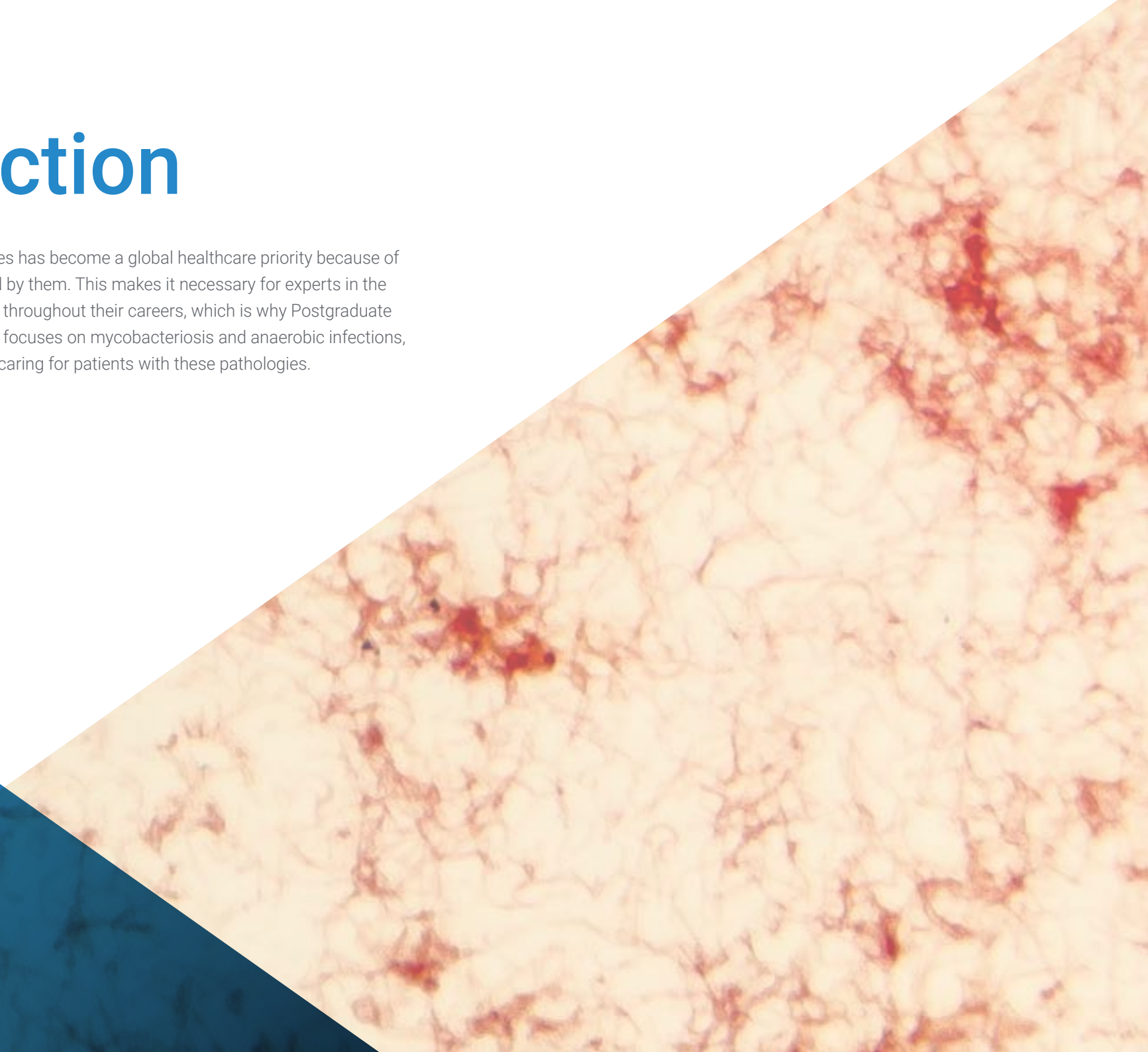
---

*p. 28*

# 04

# Introduction

Finding a cure for infectious diseases has become a global healthcare priority because of the large number of people affected by them. This makes it necessary for experts in the field to continue their specialization throughout their careers, which is why Postgraduate Certificates such as this one, which focuses on mycobacteriosis and anaerobic infections, will help physicians to specialize in caring for patients with these pathologies.



“

*Improve your knowledge in Mycobacteriosis and Infections Caused by Anaerobes and Parasites through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality medical practice”*

Infectious diseases are re-emerging as a top priority worldwide, and to meet the needs of the 21st century, health care professionals must have a solid understanding of clinical infectious diseases. Furthermore, we must add to the challenge of combating traditionally known diseases among the population, the new challenge set by the emergence in recent years of several new diseases with high morbidity, which requires a significant level of updating.

In this case, healthcare professionals will learn about mycobacteriosis and anaerobic infections. Leprosy and tetanus are among the best known pathologies, but there are other conditions caused by these microorganisms that affect people all over the world.

Despite scientific advances in the medical sciences, the development of public health and the pharmaceutical and biotechnology industry, there are infectious diseases that continue to have high morbidity and mortality rates, which makes it necessary to never stop working and researching in these areas.

In order to learn how to combat or reduce the effects of infections, experts in infectology have created this Postgraduate Certificate, which focuses on the treatment of mycobacteriosis and anaerobic infections. This specialization aims to provide healthcare professionals with the necessary tools to become specialists in the diagnosis and treatment of this type of infections that nowadays can arise anywhere in the world.

This **Postgraduate Certificate in Mycobacteriosis and Infections Caused by Anaerobes and Parasites** contains the most complete and up-to-date scientific program on the market. The most important features of the course are:

- Firstly, Clinical features, in order to address the health-infectious disease process in a particular person through the study of the most prevalent and deadly infectious diseases and, secondly, in Epidemiologic features, to study the behavior of the same phenomenon in a particular population.
- Training and professional development in the indication, performance and interpretation of the main state-of-the-art diagnostic tests to complement clinical skills in the diagnostic process. Emphasizing the most up-to-date microbiological tests used to rapidly diagnose germs and study antimicrobial resistance.
- Training and professional development in the complex and determining pathophysiological relationships between immune response and infectious agents.
- Training and professional development in germs related to neoplasms and chronic non-communicable diseases.
- Training and professional development in the development and production of vaccines for the control of morbidity and mortality due to infectious diseases.
- Training and professional development in the important field of antimicrobial therapeutics, providing the best available information on the development and production of new antibiotics.



*Update your knowledge through the Postgraduate Certificate in Mycobacteriosis and Infections Caused by Anaerobes and Parasites”*

“

*This Postgraduate Certificate may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge of Mycobacteriosis and Infections Caused by Anaerobes and Parasites, you will obtain a certificate from TECH Technological University”*

Its teaching staff is made up of prestigious and renowned Cuban professionals with a long career in health care, teaching and research, who have worked in many countries on several continents, developing professional and teaching experience that they deliver in an extraordinary way in this Postgraduate Certificate.

The methodological design of this Postgraduate Certificate, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous educational multimedia tools that allow the professional, based primarily on the problem-based learning method, to address real problems in their daily clinical practice, which will allow them to advance by acquiring knowledge and developing skills that will impact their future professional work.

It should be noted that the contents generated for this Postgraduate Certificate, as well as the videos, self-evaluations, clinical cases and exams, have been thoroughly reviewed, updated, and integrated by the teachers and the team of experts that make up the working group, to facilitate the learning process with a step-by-step approach in order to achieve the teaching program objectives.

*Increase your decision-making confidence by updating your knowledge through this program.*

*Take the opportunity to learn about the latest advances in Mycobacteriosis and Infections Caused by Anaerobes and Parasites and improve patient care.*



# 02 Objectives

The main objective of this Postgraduate Certificate is the improvement of health professionals, based on the acquisition of the most up-to-date and innovative scientific knowledge in the field of infectious diseases and their treatment, enabling them to develop the skills that will turn their daily clinical practice into a bastion of the standards of the best scientific evidence available, with a critical, innovative, multidisciplinary and integrative focus.







“

*This Postgraduate Certificate will help you to be more accurate in the diagnosis of Mycobacteriosis and Infections Caused by Anaerobes and Parasites”*



## General Objective

---

- Guarantee professional improvement through up-to-date and in-depth knowledge of the best scientific evidence , for the prevention, diagnosis, and treatment of infectious diseases with a multidisciplinary and integrative approach that facilitates the control of these pathologies.



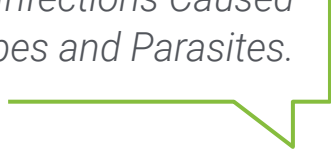


## Specific Objectives

---

- ◆ Provide students with advanced, in-depth, updated, and multidisciplinary information that allows them to comprehensively approach the process of health-infectious diseases.
- ◆ Provide training and practical theoretical improvement that will enable a reliable clinical diagnosis supported by the efficient use of diagnostic methods to indicate an effective integral treatment.
- ◆ Assess and interpret the epidemiological characteristics and conditions of the different continents where the appearance and development of infectious diseases often occur.
- ◆ Explain the mycoses with the highest morbidity and mortality rates.

*Update your knowledge through the Postgraduate Certificate in Mycobacteriosis and Infections Caused by Anaerobes and Parasites.*



03

# Course Management

Renowned and recognized medical specialists with numerous publications, teaching experience, and professional experience in many countries, where many of the diseases studied have a high morbimortality, participate in the teaching program. The teaching staff is made up of a multidisciplinary team from various medical specialities, such as internal medicine, paediatrics, general surgery, gynaecology and obstetrics, microbiology, pathological anatomy, pharmacology, among others.





“

*Learn from leading professionals the latest advances in infectious diseases and antibiotic management”*

## Management



### Dr. Díaz Pollán, Beatriz

- Faculty Area Specialist La Paz University Hospital Since 2013.
- Official Doctoral Programme in Clinical Medicine. Rey Juan Carlos University. 2014.
- Degree in Medicine and Surgery. Autonomous University of Madrid. 1995.
- Masters in Infectious Diseases and Antimicrobial Treatment. CEU - Cardenal Herrera University. 2018.
- University Expert in Community and Nosocomial Infections. CEU - Cardenal Herrera University. 2018.
- University Expert in Chronic Infectious Diseases and Imported Infections. CEU - Cardenal Herrera University. 2018.
- University Expert in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology. CEU - Cardenal Herrera University. 2018.
- Faculty Area Specialist San Carlos Clinical Hospital 2001-2013.
- Resident doctor. San Carlos Clinical Hospital 1996-2001.



### **Dr. Quintero Casanova, Jesús**

- ♦ Attending physician and professor of medicine. General Teaching Hospital Héroes del Baire.
- ♦ 1st and 2nd Degree Specialist in Internal Medicine.
- ♦ Assistant Professor of the Speciality.
- ♦ Master's Degree in Clinical Infectious and Tropical Diseases.
- ♦ Teacher of Excellence Award. FCM IJ. 2009.
- ♦ Alma Mater Prize of the FEU (in the years: 2008, 2009, 2015, 2016 y 2017).

# 04

## Structure and Content

The teaching program has been created to provide healthcare professionals with the necessary tools for daily practice in the treatment of mycobacteriosis and anaerobic infections. Thus, the content of this Postgraduate Certificate comprises the most updated syllabus on the market, which has been developed by leading experts in the field at the international level, with the aim of making specialists more accurate in the diagnosis and treatment of this type of infections.







“

*This Postgraduate Certificate in Mycobacteriosis and Infections Caused by Anaerobes and Parasites contains the most complete and up-to-date scientific program on the market”*

## Module 1 Mycobacteriosis and anaerobic infections

- 1.1. General Overview of Mycobacteriosis
  - 1.1.1. Microbiological Characteristics of Mycobacteria
  - 1.1.2. Immune Response to Mycobacterial Infection
  - 1.1.3. Epidemiology of Major Nontuberculous Mycobacteria Infections
- 1.2. Microbiological Methods for the Diagnosis of Mycobacterioses
  - 1.2.1. Direct Methods
  - 1.2.2. Indirect Methods
- 1.3. Intracellular Mycobacterium Avium Infection
  - 1.3.1. Epidemiology
  - 1.3.2. Infectious Agents
  - 1.3.3. Pathobiology
  - 1.3.4. Clinical Picture
  - 1.3.5. Diagnosis
  - 1.3.6. Treatment
- 1.4. Mycobacterium Kansaii Infection
  - 1.4.1. Epidemiology
  - 1.4.2. Infectious Agents
  - 1.4.3. Pathobiology
  - 1.4.4. Clinical Picture
  - 1.4.5. Diagnosis
  - 1.4.6. Treatment
- 1.5. Leprosy
  - 1.5.1. Epidemiology
  - 1.5.2. Infectious Agents
  - 1.5.3. Pathobiology
  - 1.5.4. Clinical Picture
  - 1.5.5. Diagnosis
  - 1.5.6. Treatment
- 1.6. Other Mycobacteriosis
- 1.7. Antimycobacterials
  - 1.7.1. Pharmacological Characteristics
  - 1.7.2. Clinical Use



**Anaerobic Infections:**

- 1.8. Microbiological Characteristics of Anaerobic Germs
  - 1.8.1. Microbiological Characteristics of Anaerobic Germs
  - 1.8.2. Microbiology Studies
- 1.9. Pulmonary Abscess
  - 1.9.1. Definition
  - 1.9.2. Etiology
  - 1.9.3. Clinical Picture
  - 1.9.4. Diagnosis
  - 1.9.5. Treatment
- 1.10. Intra-Abdominal and Tuboovarian Abscesses
  - 1.10.1. Definition
  - 1.10.2. Etiology
  - 1.10.3. Clinical Picture
  - 1.10.4. Diagnosis
  - 1.10.5. Treatment
- 1.11. Intracerebral Abscess
  - 1.11.1. Definition
  - 1.11.2. Etiology
  - 1.11.3. Clinical Picture
  - 1.11.4. Diagnosis
  - 1.11.5. Treatment
- 1.12. Tetanus and Gangrene
  - 1.12.1. Tetanus: Neonatal and Adult
  - 1.12.2. Gangrene: Definition, Aetiology, Clinical Case, Diagnosis, Treatment
- 1.13. Main Antimicrobials against Anaerobic Germs
  - 1.13.1. Mechanism of Action
  - 1.13.2. Pharmacokinetics
  - 1.13.3. Dose
  - 1.13.4. Introduction
  - 1.13.5. Adverse Effects

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.



“

*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”*

## At TECH we use the Case Method

In a given 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 abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you 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 in professional medical 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. Students 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 student 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.



## 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 physician 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 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning will allow you to learn with less effort and better performance, involving you more in your specialization, 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). Hence, 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 highly 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.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical 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 future difficult 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 Mycobacteriosis and Infections Caused by Anaerobes and Parasites guarantees, in addition to the most rigorous and updated specialization, access to a Postgraduate Certificate issued by **TECH Technological University**.



“

*Successfully complete this specialisation and receive your university degree without travel or laborious paperwork”*

This Postgraduate Certificate in Mycobacteriosis and Infections Caused by Anaerobes and Parasites contains the most complete and up-to-date scientific program on the market.

After students have passed the assessments, they will receive by certified mail their Postgraduate Certificate issued by TECH Technological University.

The certificate issued by TECH Technological University will specify 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 Mycobacteriosis and Infections Caused by Anaerobes and Parasites

ECTS: 5

Number of 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  
development languages  
virtual classroom



## Postgraduate Certificate

Mycobacteriosis and  
Infections Caused  
by Anaerobes and  
Parasitosis

Course Modality: Online

Duration: 6 weeks

Endorsed by: TECH Technological University

5 ECTS Credits

Hours 125 hours.

# Postgraduate Certificate

Mycobacteriosis and Infections  
Caused by Anaerobes and Parasites

