

Postgraduate Certificate

Mycobacterium Tuberculosis
Complex Infections



Postgraduate Certificate Mycobacterium Tuberculosis Complex Infections

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/mycobacterium-tuberculosis-complex-infections

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01

Introduction

Although tuberculosis is a disease that has been rigorously studied for decades, it continues to cause millions of deaths each year, especially in HIV patients. Infections caused by Mycobacterium Tuberculosis Complex (MTC) can lead to serious comorbidities that mainly affect the respiratory system, although it can also cause irreversible damage to the bones, intestine or genitourinary organs, among others. However, the truth is that great advances have been made, and continue to be made every day in terms of early diagnosis and treatment, which is why the medical specialist must be in continuous attention. In order to find in a single degree all the information that allows you to be up to date on this subject, TECH has developed this convenient 100% online program with which you will not only update your knowledge in just 6 weeks, but you will be able to improve your professional skills through the resolution of real clinical cases.





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In just 6 weeks you will update your knowledge of MTC infections, their pathogenesis, diagnosis and treatment”

According to the World Health Organization, 1.5 million people lost their lives to tuberculosis in 2020. It is the second most deadly infectious disease in the world (behind only COVID-19) and one of the leading causes of death in general. The declaration in 1993 of a "health emergency", due to its magnitude as a public health problem, has meant that every year large sums of money are invested in its research, resulting in small advances that make it possible, little by little, to intervene in better treatment and early differential diagnosis.

For this reason, the Postgraduate Certificate in Mycobacterium Tuberculosis Complex (MTC) Infections is a necessary qualification for all those specialists who want to be updated on the latest developments related to this pathology. Through an exhaustive syllabus designed by experts in Medicine and Microbiology, the graduate will be able to delve into the natural evolution of the disease, its pathogenesis, clinical manifestations and how its comorbidities affect the lungs, mainly, but also the genitourinary organs, bones or intestines, among others. In addition, it also focuses on the latest guidelines related to its treatment.

Therefore, a unique academic opportunity to take a 100% online degree, designed based on the most exhaustive medical requirements and the space-time needs of specialists. This Postgraduate Certificate will allow the graduate to contact the Virtual Classroom from wherever he/she wants and with a timetable totally adapted to his/her availability. In this way, they will be able to update their knowledge in a guaranteed way and in coordination with the rest of their professional and personal activities.

This **Postgraduate Certificate in Mycobacterium Tuberculosis Complex Infections** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Medicine and Microbiology
- ♦ 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
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



Tuberculosis is one of the main causes of death in the world, that is why being up to date in its diagnostic and treatment novelties can help you save lives”

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Will be able to delve into the different types of pulmonary tuberculosis, as well as its clinical manifestations and new developments related to the differential diagnosis of each one of them”

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content developed with the latest educational technology, will allow the professional a situated and contextual learning; that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

There are 180 horas of training that include the most exhaustive and rigorous scientific syllabus, perfect for you not to leave any aspect unconsulted.

You will have additional high quality material to deepen each aspect of the syllabus in a personalized way.



02 Objectives

Given the latency that tuberculosis continues to have today, it was urgent for TECH to develop a 100% online degree adapted to the availability of specialists, with which they could update on developments related to this infectious pathology. Therefore, the objective of this Postgraduate Certificate is to help graduates to update their knowledge in a comprehensive manner, also focusing on the improvement of their medical skills and aptitudes in the clinical management of patients suffering from this disease.



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Will also delve into the most novel aspects of military and genitourinary tuberculosis, so that you will learn in detail the latest scientific evidence related to its treatment”

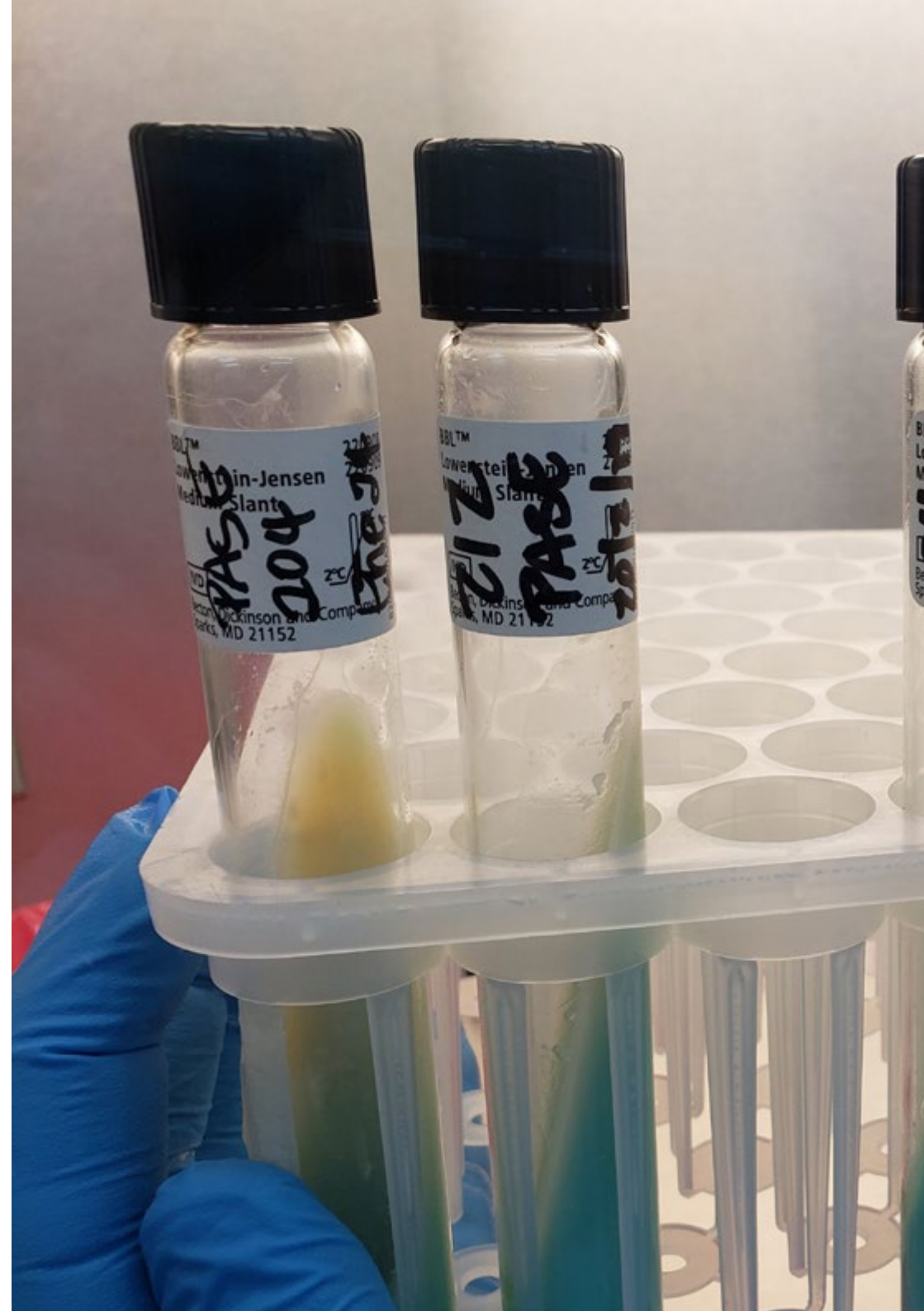


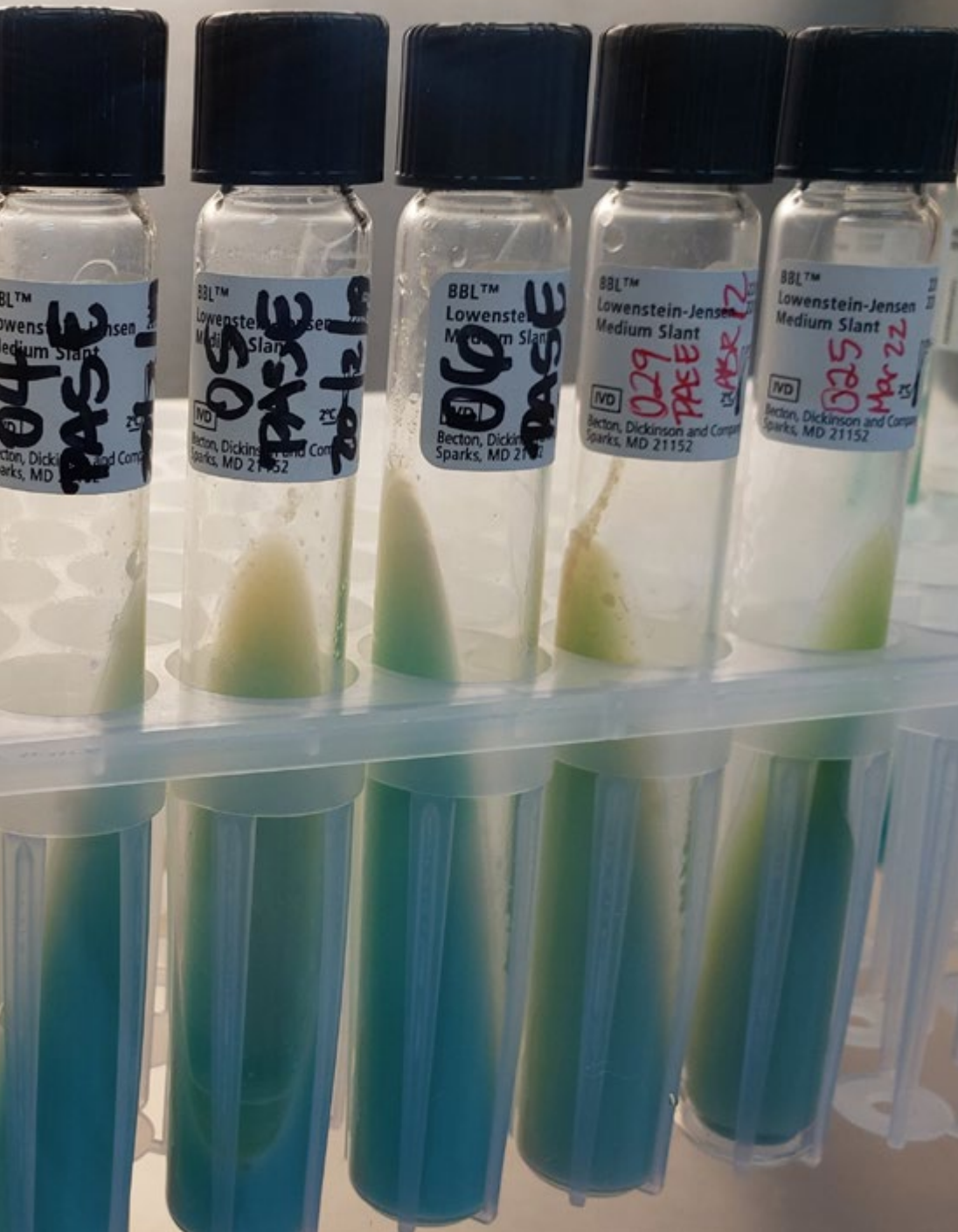
General Objectives

- Provide the specialist with an update on the most novel aspects related to infections caused by Mycobacterium tuberculosis complex
- Allow the graduate to be updated on the main treatment guidelines for these infectious pathologies

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You will have real clinical cases to put into practice your professional skills through diagnostic simulation and the appropriate treatment guidelines according to each patient”





Specific Objectives

- ♦ Learn the natural history of the disease caused by Mycobacterium tuberculosis complex
- ♦ Become deeply familiar with the pathogenesis of these infections and the diagnostic criteria according to the clinical features manifested in patients
- ♦ Recognize the clinical signs and symptoms, laboratory findings and imaging studies for the diagnosis of pulmonary tuberculosis and other forms of extrapulmonary tuberculosis
- ♦ Learn to make decisions regarding available treatment regimens

03

Course Management

When designing each of its degrees, TECH always takes into consideration what is best for the alumni. Undoubtedly, having a teaching team that is a reference in the area in which the program is developed is one of the aspects that TECH always tries to take care of. For this reason, the graduate who accesses this Postgraduate Certificate will have the opportunity to be updated by the hand of real experts in Medicine and Microbiology with a long and extensive professional experience in the management of patients with tuberculosis.





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The teaching team, made up of experts in Microbiology, will accompany you throughout the course of the Diploma, to guide you and ensure that you get the most out of this academic experience”

Management



Dr. Sánchez Romero, María Isabel

- ♦ Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid
- ♦ PhD 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

Professors

Dr. Callejas Díaz, Alejandro

- ♦ Faculty Area Specialist Infectious Diseases Department, Internal Medicine, Puerta de Hierro University Hospital, Majadahonda, Madrid
- ♦ Teaching Collaborator, Autonomia University of Madrid
- ♦ Degree in Medicine from the Autonomous University Madrid
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Proprietary Master's Degree in Infectious Diseases and Antimicrobial Treatment, CEU Cardenal Herrera University

Dr. Muñoz, Elena

- ♦ Area Specialist, Internal Medicine, Infectious Diseases, Puerta de Hierro University Hospital, Majadahonda, Madrid
- ♦ Doctor in Medicine and Surgery at the Autonomous University of Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid



Dr. Pintos Pascual, Ilduara

- ♦ Assistant Physician of the Internal Medicine Department at the Puerta de Hierro Majadahonda University Hospital
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Degree in Medicine, University of Alcalá Henares

Dr. Ramos Martínez, Antonio

- ♦ Head of Infectious Diseases Section of the Puerta de Hierro Majadahonda University Hospital
- ♦ Head of Internal Medicine Section of the Puerta de Hierro Majadahonda University Hospital
- ♦ Coordinator of Clinical Management of Covid patients of the Puerta de Hierro Majadahonda University Hospital
- ♦ Coordinator of the FEMI Infectious Diseases Working Group
- ♦ Teacher at the Autonomous University of Madrid
- ♦ PhD in Medicine from the Autonomous University in Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

04

Structure and Content

The syllabus of this degree has been designed exclusively by the teaching team for this Diploma taking into account the demanding pedagogical and quality criteria that define TECH. Therefore, the graduate who accesses this 100% online program will find in it the most updated information on infections caused by TCM, its diagnosis and treatment. In addition, they will have additional material in video format, images, research articles and complementary readings that they can download and consult whenever they need to, even after finishing their academic experience with this university.





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You will be able to access the Virtual Classroom from any device with internet connection, whether PC, Tablet or mobile, so you can enjoy this academic experience from wherever you want”

Module 1. Mycobacterium Tuberculosis Complex Infections

- 1.1. Natural Evolution of the Disease
 - 1.1.1. Immunopathology
- 1.2. Pathogenesis
- 1.3. Clinical Manifestations
 - 1.3.1. Diagnostic Criteria
- 1.4. Pulmonary Tuberculosis
 - 1.4.1. Primary Pulmonary Tuberculosis
 - 1.4.2. Post-Primary Pulmonary Tuberculosis
 - 1.4.3. Tuberculous Pleuritis
- 1.5. Miliary Tuberculosis
- 1.6. Genitourinary Tuberculosis
- 1.7. Osteoarticular Tuberculosis
- 1.8. Intestinal Tuberculosis and Peritonitis
- 1.9. Other Forms of Extrapulmonary Tuberculosis
- 1.10. Treatment Guidelines





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Enroll in the world's largest online medical school and learn about the first scientific advances in your specialty thanks to the international community that makes up TECH”

04 Methodology

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.



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Discover Relearning, 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

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. Specialists 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 in the physician's professional practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into 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.



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.

Professionals will learn through real cases and by resolving 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 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 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 (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's 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 highly 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.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. 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 the videos as many times as you like.



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 exclusive educational system for presenting multimedia content 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.



06 Certificate

This Postgraduate Certificate in Mycobacterium Tuberculosis Complex Infections guarantees, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.



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*Successfully complete this program
and receive your university qualification
without having to travel or fill out
laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Mycobacterium Tuberculosis Complex Infections** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Mycobacterium Tuberculosis Complex Infections**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



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