



### Postgraduate Certificate

### Rare Infectious Diseases

Course Modality: Online

Duration: 6 weeks

Endorsed by: TECH Technological University

4 ECTS credits
Hours 100 hours.

Website: www.techtitute.com/medicine/postgraduate-certificate/rare-infectious-diseases

## Index

 $\begin{array}{c|c} 01 & 02 \\ \hline & \\ \hline \\ 03 & 04 \\ \hline \\ \hline \\ \hline \\ course \, \text{Management} \\ \hline \\ \hline \\ p. \, 12 & p. \, 16 \\ \hline \\ \hline \\ \hline \\ 06 & \\ \hline \\ \hline \\ 06 & \\ \hline \\ \end{array}$ 

p. 28

Certificate





### tech 06 | Introduction

Infectious diseases are one of the world's major health problems on account of the number of people they affect. To meet the healthcare needs of the 21st century, medical professionals need to keep up with advances in patient care. In this case, we will delve into the knowledge of certain rare infections that affect a large part of society.

Rare infectious diseases are gaining ground in the field of research, although there is still a lot of research to be done to find the most effective treatments to control these types of infections and, above all, to try to combat new emerging ones. Furthermore, it should be taken into account that infection control has become a major challenge, especially due to problems arising from antimicrobial resistance.

All this means that physicians must continue their training with educational programs such as this one in order to learn about the main advances and be able to prescribe the most effective treatments in the case of rare infections.

With 100% online training courses such as this one, specialists can continue with their professional work while training, which will make them stand out in their day-to-day work.

This **Postgraduate Certificate in Rare Infectious Diseases** contains the most complete and updated 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.



### Introduction | 07 tech



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 Rare Infectious Diseases, 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 professors and the team of experts that make up the work 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 Rare Infectious Diseases and improve your patient care.



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 rare 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.

### tech 10 | Objectives



### **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.



Update your knowledge through the Postgraduate Certificate in Rare Infectious Diseases".





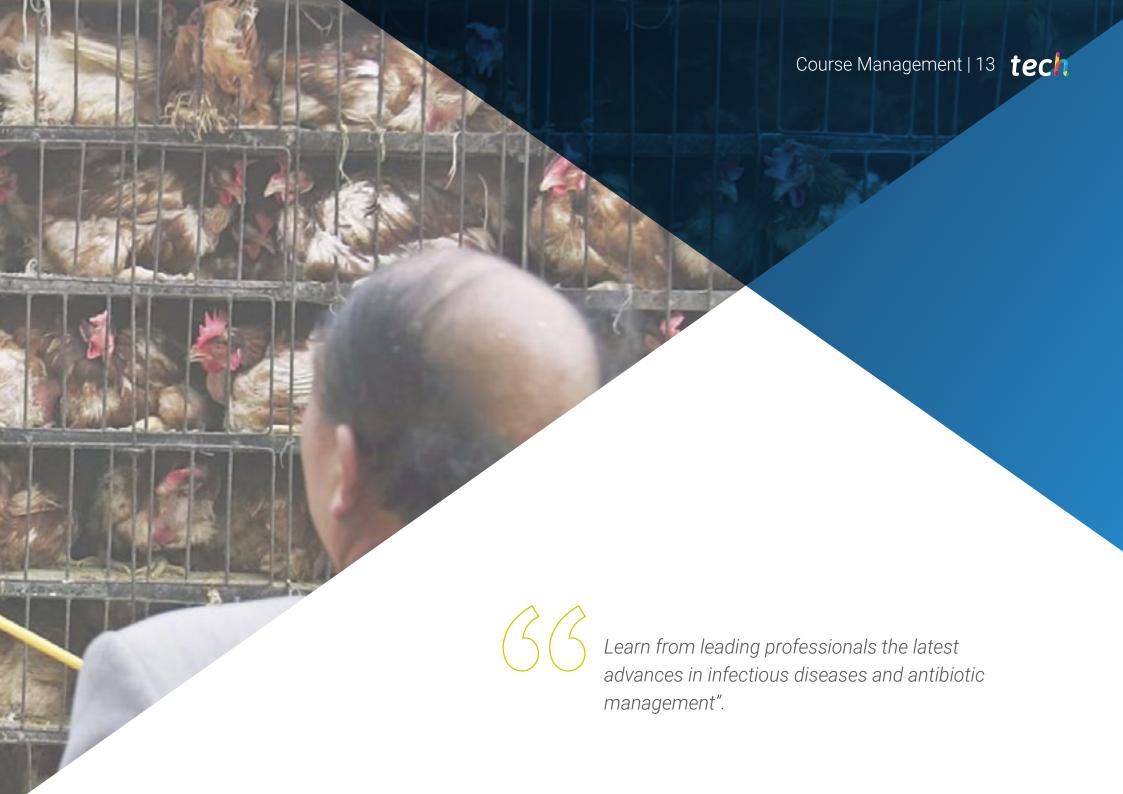
### Objectives | 11 tech



### **Specific Objectives**

- Provide students with advanced, in-depth, updated, and multidisciplinary information that allows them to comprehensively approach the process of healthinfectious 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.
- Develop skills to implement prophylactic plans for the prevention of these pathologies.
- Emphasize the development of future antibiotics and other therapeutic modalities for infectious diseases.
- Explain the clinical, diagnostic and treatment elements of rare or uncommon infectious diseases.
- Emphasise the future challenges of infectious diseases in reducing infectious morbidity and mortality.





### tech 14 | Course Management

#### **Guest Director**



#### 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. 201
- 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 1996-200

#### Co-Direction



### 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

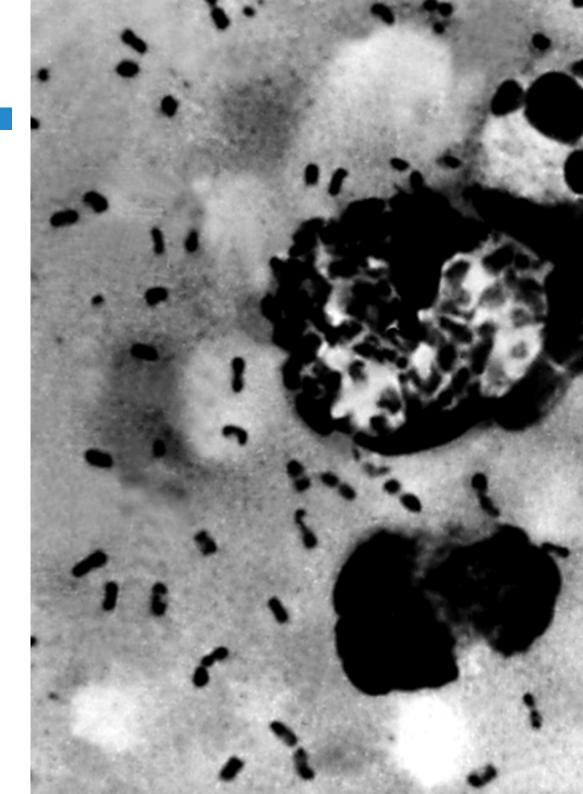


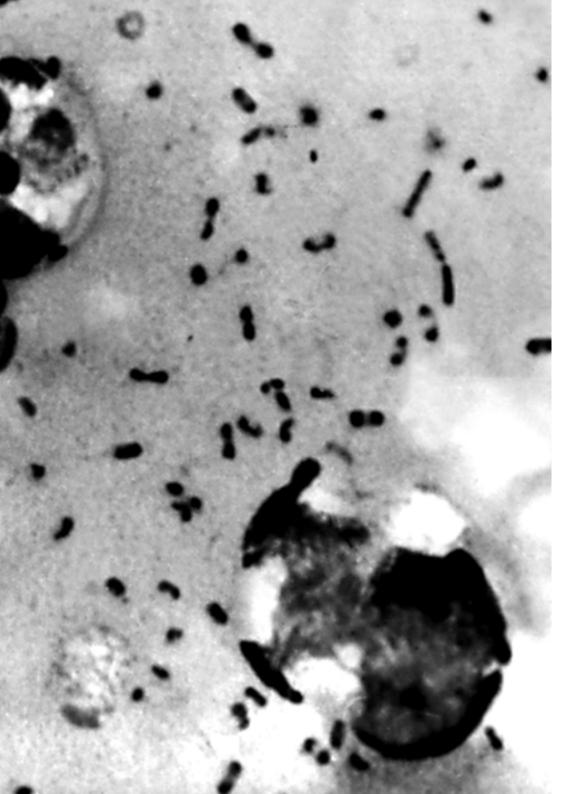


### tech 18 | Structure and Content

#### Module 1. Rare Infectious Diseases and Other Challenges in Infectiology

- 1.1. Overview of Rare Infectious Diseases
  - 1.1.1. General Concepts
  - 1.1.2. Epidemiology of Rare or Uncommon Infectious Diseases
- 1.2. Bubonic Plague
  - 1.2.1. Definition
  - 1.2.2. Etiology
  - 1.2.3. Clinical Picture
  - 1.2.4. Diagnosis
  - 1.2.5. Treatment
- 1.3. Lyme Disease
  - 1.3.1. Definition
  - 1.3.2. Etiology
  - 1.3.3. Clinical Picture
  - 1.3.4. Diagnosis
  - 1.3.5. Treatment
- 1.4. Babesiosis
  - 1.4.1. Definition
  - 1.4.2. Etiology
  - 1.4.3. Clinical Picture
  - 1.4.4. Diagnosis
  - 1.4.5. Treatment
- 1.5. Rift Valley Fever
  - 1.5.1. Definition
  - 1.5.2. Etiology
  - 1.5.3. Clinical Picture
  - 1.5.4. Diagnosis
  - 1.5.5. Treatment
- 1.6. Diphyllobothriasis
  - 1.6.1. Definition
  - 1.6.2. Etiology
  - 1.6.3. Clinical Picture
  - 1.6.4. Diagnosis
  - 1.6.5. Treatment





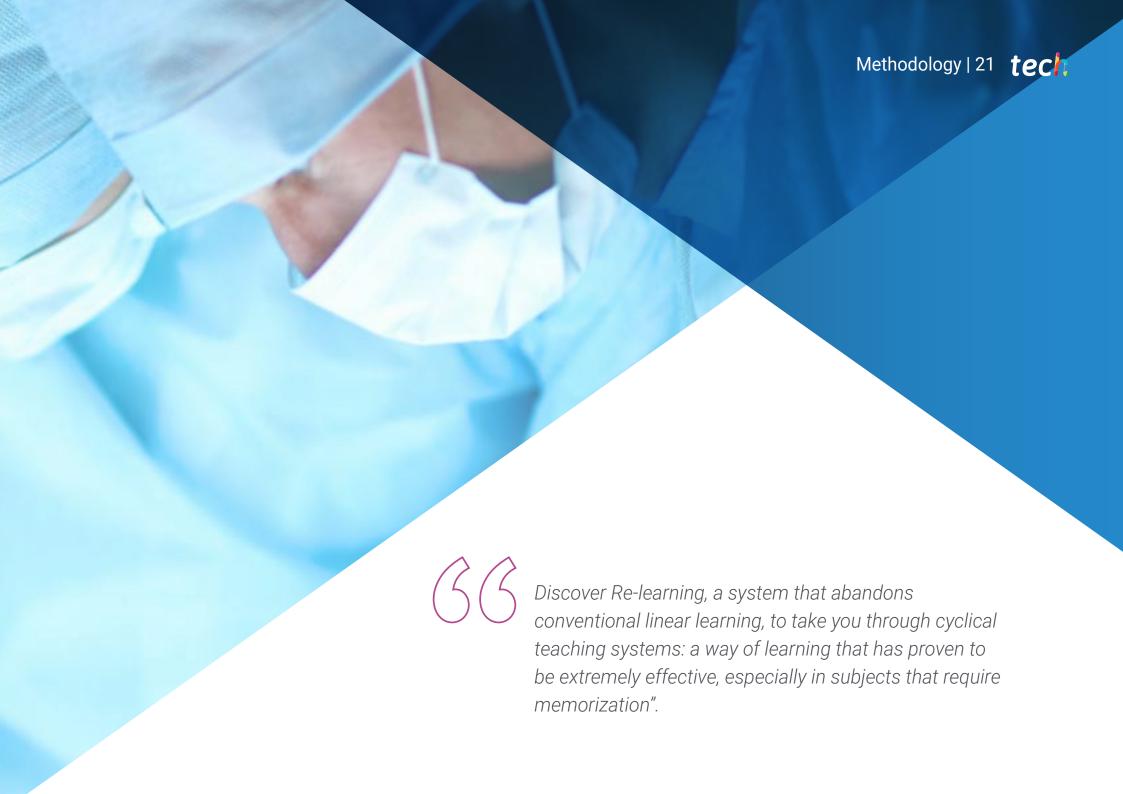
### Structure and Content | 19 tech

- 1.7. Zygomycosis
  - 1.7.1. Definition
  - 1.7.2. Etiology
  - 1.7.3. Clinical Picture
  - 1.7.4. Diagnosis
  - 1.7.5. Treatment
- 1.8. Cysticercosis
  - 1.8.1. Definition
  - 1.8.2. Etiology
  - 1.8.3. Clinical Picture
  - 1.8.4. Diagnosis
  - 1.8.5. Treatment
- 1.9. Kuru
  - 1.9.1. Definition
  - 1.9.2. Etiology
  - 1.9.3. Clinical Picture
  - 1.9.4. Diagnosis
  - 1.9.5. Treatment

#### **Challenges in Infectology:**

- 1.10. The Re-emergence of Old Diseases: Causes and Effects
  - 1.10.1. Emerging and New Infectious Diseases that Demand New Approaches to Their Control
  - 1.10.2. The Rise of Microbiological Resistance to Antimicrobial Drugs
  - 1.10.3. Development of New Antibiotics





### tech 22 | Methodology

#### 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:

- 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.
- 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.





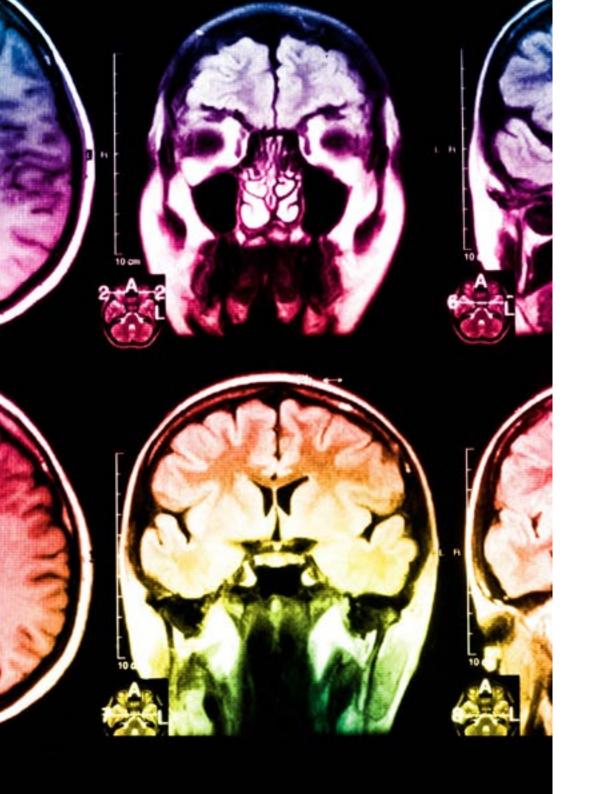
#### **Re-Learning Methodology**

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-theart software to facilitate immersive learning.





### Methodology | 25 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 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.

### tech 26 | Methodology

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**

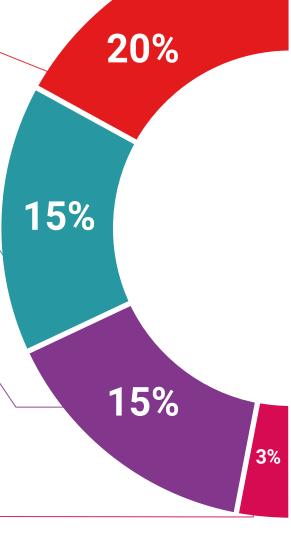
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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.

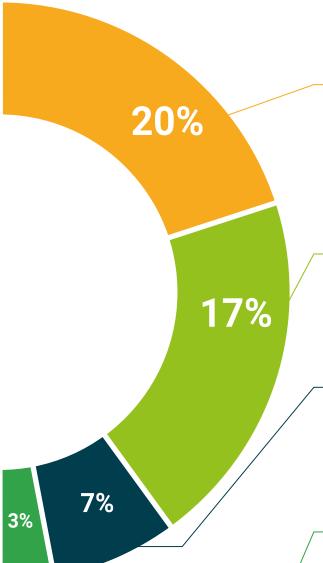
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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.







### tech 30 | Certificate

This **Postgraduate Certificate in Rare Infectious Diseases** contains the most complete and updated 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 through the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Rare Infectious Diseases

ECTS: 4

Number of Hours: 100



<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

health confidence people information tutors guarantee accreditation teaching teaching teaching teaching community commitment.



# Postgraduate Certificate Rare Infectious Diseases

Course Modality: Online
Duration: 6 weeks

Endorsed by: TECH Technological University

4 ECTS credits
Hours 100 hours.

