



# Postgraduate Certificate

# Rare Infectious Diseases

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

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

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# 01 Introduction

New infectious diseases are emerging all the time, forcing pharmacists to keep abreast of the main advances in order to be more precise in their treatments. In addition, only through the most accurate research can we provide answers to these types of diseases, seeking optimal treatments that mitigate their effects on people. Therefore, through this program, pharmacy professionals will specialize in the main Rare Infectious Diseases to improve their daily practice.



# tech 06 | Introduction

Infectious diseases are one of the world's major health problems, due to the number of people they affect. In order to meet the healthcare needs of the 21st century, it is necessary for pharmaceutical professionals to keep abreast of advances in this area of care for the sick. In this case, TECH goes deep into 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 this type of infections and, above all, to try to combat new ones that emerge. In addition, 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 pharmacists must continue their training with educational programs such as the one we present on this occasion, to learn about the main advances and be able to prescribe the most effective treatments in the case of rare infections.

In this way, with a training course like this one, which is 100% online, you can help specialists to continue with their professional work while not neglecting training, which will make them stand out in their day to day work.

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New scenarios in rare infectious diseases drive us to propose specialization programs that meet the real needs of the pharmacy professionals, so that they can incorporate new advances into their daily practice" This **Postgraduate Certificate in Rare Infectious Diseases** endorses the latest advances in infectious diseases with a didactic teaching program that positions it as an educational product of the highest scientific rigor at international level. In addition, this program provides training and professional development in different areas:

- Clinical symptoms development medicine to be able to address the infectious health disease process in a particular person through the study of the most prevalent and deadly infectious diseases, and in Epidemiology, to study the behaviour of the same phenomenon in a 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
- Training and professional development in the complex and determining pathophysiological relationships between the immune response and infectious agents
- Training and professional development in germs related to neoplasms and chronic non communicable diseases
- 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



With this Postgraduate Certificate, you have the opportunity to update your knowledge comfortably and without sacrificing scientific accuracy, in order to incorporate the latest advances in the approach to Rare Infectious Diseases in your daily Care Services practice"

Its teaching staff is made up of prestigious and renowned Cuban professionals with a long career in health care, teaching and research, who have work 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 Professional Postgraduate Certificate's Degree, 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 Problem 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 in this Postgraduate Certificate's Degree that each of the contents generated, 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.

Feel how you improve in your work after completing this specialization.

If you want to be the best in your profession, do not hesitate to study with us.







# 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



Get this specialized training adapted to your profession to improve patient treatment on a daily basis"





## Objectives | 11 tech



# **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
- Develop skills to implement prophylactic plans for the prevention of these pathologies
- Emphasise 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

#### Management



#### Dr. Díaz Pollán, Beatriz

- Faculty Specialist Déu Hospital La Paz University Hospital
- Official Doctoral Programme in Clinical Medicine Clinical symptoms, University Rey Juan Carlos
- Degree in Medicine and Surgery, Universidad Autónoma de Madrid
- · Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University
- · Postgraduate Certificate in Community and Nosocomial Infections from CEU Cardenal Herrera University
- · Postgraduate Certificate in Chronic Infectious Diseases and Imported Infections from CEU Cardenal Herrera University
- Postgraduate Certificate in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology from CEU Cardenal Herrera University
- Faculty Specialist Déu Hospital San Carlos Clinical Hospital
- Resident doctor, San Carlos Clinical Hospital

#### **Professors**

#### Dr. Rico, Alicia

- Specialist in the Microbiology and Parasitology Department at La Paz University Hospital, Madrid
- Degree in Medicine from the Complutense University of Madrid
- Doctorate Courses at the Complutense University of Madrid
- Assistant and co-founder of the Infectious Diseases and Clinical Microbiology Unit, La Paz University Hospital, Madrid
- Clinical teaching collaborator Department of Medicine of the UAM

#### Dr. Ramos, Juan Carlos

- Doctor at La Paz University Hospital, Madrid
- Official Doctoral Programme in Clinical Medicine. University of Alcalá
- $\bullet\,$  Degree in Medicine and Surgery from the Complutense, University of Madrid
- Master's Degree in Infectious Diseases in Intensive Care, Fundación Universidad Empresa Valencia
- Author of several community publications

#### Dr. Loeches Yagüe, María Belén

- \* Specialist in the area of Infectious Diseases at La Paz General University Hospital, Madrid
- Doctor in Medicine, Autonomous University, Madrid
- Degree in Medicine at Madrid Complutense University
- Master in Theoretical and Practical Learning in Infectious Diseases. Complutense University of Madrid
- Specialised Training in Microbiology and Infectious Diseases. Gregorio Marañón General University Hospital
- Professor of Infectious Diseases at the Infanta Sofía University Hospital in Madrid, European University of Madrid

#### Dr. Arribas López, José Ramón

- Head of Department of the Infectious Diseases and Clinical Microbiology Unit, La Paz University Hospital of Internal Medicine, Madrid
- Doctor in Medicine, Autonomous University, Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Coordinator of the High Level Isolation Unit La Paz Carlos III
- Member Interministerial Committee for the management of the Ebola crisis
- Head of the AIDS and Infectious Diseases research group at IdiPAZ

#### Dr. Mora Rillo, Marta

- \* Specialist in the area of Infectious Diseases at La Paz University Hospital
- Doctor in Medicine, Autonomous University, Madrid
- Degree in Medicine and Surgery, University of Zaragoza
- \* Master's Degree in Infectious Diseases in Intensive Care, University of Valencia
- Online Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University
- Master's Degree in Tropical Medicine and International Health, Autonomous University of Madrid
- Expert in Emerging and High Risk Virus Pathology, Autonomous University of Madrid
- Expert in Tropical Medicine, Autonomous University of Madrid





# tech 18 | Structure and Content

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

- 1.1. General 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
- 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
  - 1.10.4. Training and Success of Infectologists



Work with the latest educational technology, with an innovative interactive video system"

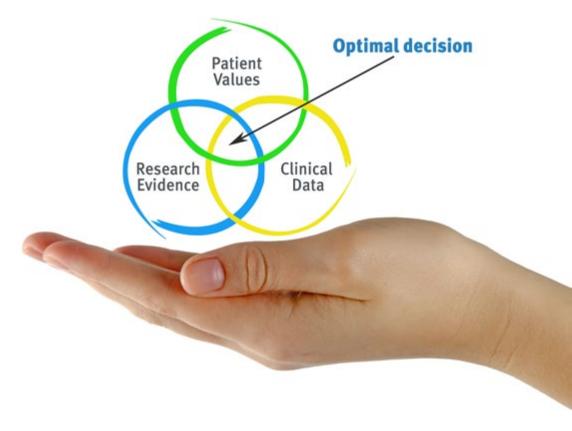


# tech 22 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will be confronted with multiple simulated clinical cases based on real patients, in which they will have to investigate, establish hypotheses and ultimately, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Pharmacists learn better, more quickly 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, attempting to recreate the actual conditions in a pharmacist's professional 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. Pharmacists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their 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.



# tech 24 | Methodology

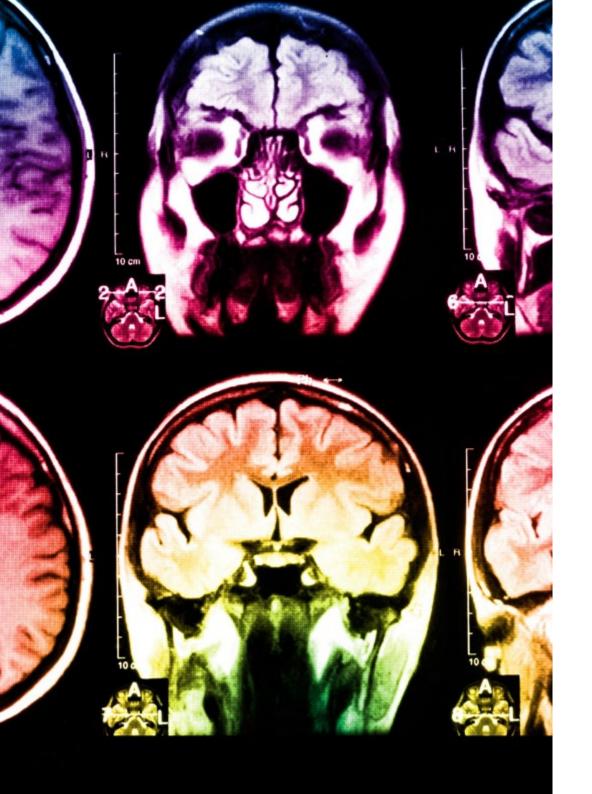
#### **Relearning Methodology**

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

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.

Pharmacists 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, more than 115,000 pharmacists have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. This pedagogical methodology is developed in a highly demanding environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years.

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.

# tech 26 | Methodology

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is created specifically for the course by specialist pharmacists who will be teaching the course, so that the didactic development is highly specific and accurate.

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.



#### **Video Techniques and Procedures**

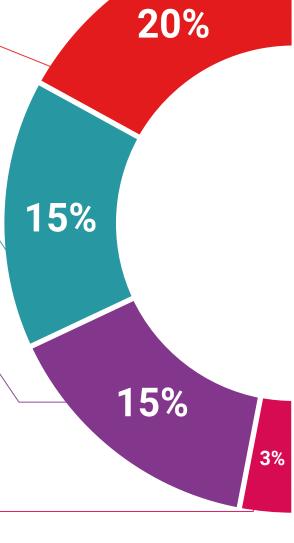
TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch 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.

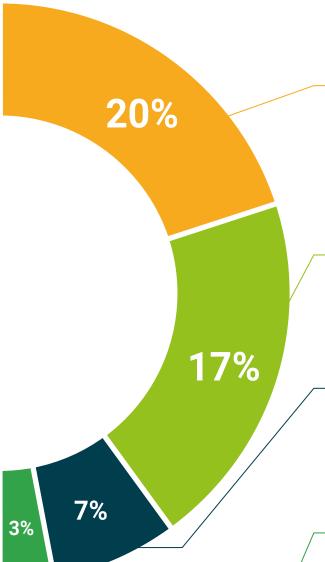
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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.



#### **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 & 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.







# tech 30 | Certificate

This **Postgraduate Certificate in Rare Infectious Diseases** 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** 

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 Rare Infectious Diseases

Official No of hours: 100 h.



#### **POSTGRADUATE CERTIFICATE**

in

#### Rare Infectious Diseases

This is a qualification awarded by this University, equivalent to 100 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 count

ue TECH Code: AFWORD23S techtitute.com/certif

<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.

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