



## Postgraduate Certificate

## **Viral Infections**

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 4 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/pharmacy/postgraduate-certificate/viral-infections

## Index

01	02		03	
Introduction	Objectives		Course Management	
p. 4	!	p. 8		p. 12
04	05		06	
04	03		UO	
Structure and Content	Methodology		Certificate	
p. 16	5	p. 20		p. 29





## tech 06 | Introduction

Viral hemorrhagic diseases and arboviruses occur mainly in tropical areas. Although anyone can be affected on a trip. Therefore, it is necessary to take preventive measures before traveling to these places, especially to avoid mosquito bites, which transmit many of these diseases.

Moreover, these are particularly alarming because they have high mortality rates among the population, mainly in the countries of origin. These include diseases such as yellow fever, Ebola, dengue fever and Zika, which caused great alarm during the present decade after the effects on newborns whose mothers had been infected during pregnancy were confirmed.

Despite scientific advances in the medical sciences, these diseases continue to have a high morbidity rate, which is why it is important not to slow down investment in research in this field.

Precisely, this program is intended to give the healthcare professional the necessary tools to become a specialist in the diagnosis and treatment of this type of infections that nowadays may have to be treated anywhere in the world.

Therefore, the teaching program brings together the most advanced and in-depth knowledge of the most important health problems in the field of viral infections, where a group of professors of high scientific rigor and extensive international experience provides the most complete and up-to-date information on this type of diseases.

This **Postgraduate Certificate in Viral Infections** endorses the latest advances in **Viral Infections** diseases with a teaching program that positions it as an educational product of the highest scientific rigor at international level. Additionally, this program provides training and professional development in different areas:

- Clinical symptoms development medicine to be able to address the infectious healthdisease 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
- 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
- The complex and determining pathophysiological relationships between the immune response and infectious agents
- 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
- The important field of antimicrobial therapeutics, providing the best available information on the development and production of new antibiotics



Make the most of this Postgraduate Certificate to update your knowledge, expand your training and obtain a certified qualification from the CEU private educational first institute"



Don't miss the opportunity to take this TECH program and start improving your daily practice as a pharmacist"

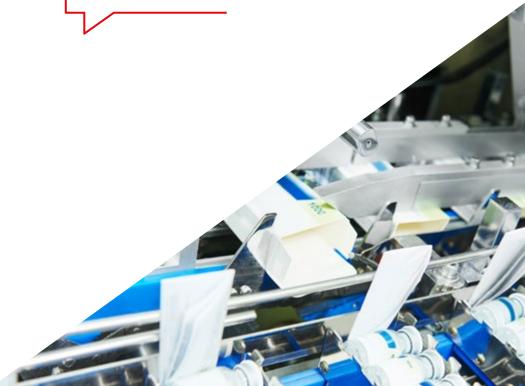
Its teaching staff is made up of prestigious and renowned professionals with a long career in health care, teaching and research, who have worked in many countries on several continents, developing professional and teaching experience that they deliver in an extraordinary way in this Postgraduate Certificate.

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 around 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 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.

This program allows pharmacists to improve their skills in different areas.

The pharmacy professional must be aware of the latest developments in treatments in order to offer the best care in their daily practice.







## tech 10 | Objectives



## **General Objectives**

• Guarantee professional improvement, through up the pharmacist-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



Become the best pharmacist in the treatment of viral infections after taking this program with us"







## **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
- Substantiate the importance of the control of viral haemorrhagic diseases and the detailed study of the most frequent and deadly diseases for the reduction of morbidity and mortality worldwide
- Highlight the role of vector control and the clinical epidemiological study of arbovirosis







## tech 14 | Course Management

#### Management



#### Dr. Díaz Pollán, Beatriz

- Faculty Specialist Déu Hospital La Paz University Hospital. Since
- Official Doctoral Programme in Clinical Medicine Clinical symptoms, University Rey Juan Carlos
- Degree in Medicine and Surgery, Autonomous University of 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. Viral Hemorrhagic Diseases and Arboviruses.

- 1.1. Viral Hemorrhagic Diseases
  - 1.1.1. Epidemiology
  - 1.1.2. Classification
  - 1.1.3. Diagnostic Approach to Viral Haemorrhagic Diseases
  - 1.1.4. The Development of Vaccines for New Diseases
  - 1.1.5. Measures for the Control of Viral Haemorrhagic Diseases
- 1.2. Ebola Haemorrhagic Fever
  - 1.2.1. Characteristics and Replicative Cycle of the Virus
  - 1.2.2. Clinical Picture
  - 1.2.3. Diagnosis
  - 1.2.4. Treatment
- 1.3. South American Hemorrhagic Fevers
  - 1.3.1. Characteristics and Replicative Cycle of the Virus
  - 1.3.2. Clinical Picture
  - 1.3.3. Diagnosis
  - 1.3.4. Treatment
- 1.4. Arbovirus:
  - 1.4.1. Epidemiology
  - 1.4.2. Vector Control
  - 1.4.3. Other Arboviruses
- 1.5. Yellow Fever.
  - 1.5.1. Concept
  - 1.5.2. Replicative Cycle of the Virus
  - 1.5.3. Clinical manifestations
  - 1.5.4. Diagnosis
  - 1.5.5. Treatment



## Structure and Content | 19 tech

- 1.6. Dengue.
  - 1.6.1. Concept
  - 1.6.2. Replicative Cycle of the Virus
  - 1.6.3. Clinical manifestations
  - 1.6.4. Diagnosis
  - 1.6.5. Treatment
- 1.7. Chikungunya
  - 1.7.1. Concept
  - 1.7.2. Replicative Cycle of the Virus
  - 1.7.3. Clinical manifestations
  - 1.7.4. Diagnosis
  - 1.7.5. Treatment
- 1.8. Zika
  - 1.8.1. Concept
  - 1.8.2. Replicative Cycle of the Virus
  - 1.8.3. Clinical manifestations
  - 1.8.4. Diagnosis
  - 1.8.5. Treatment



It is the most complete and up-to-date scientific program on the market"

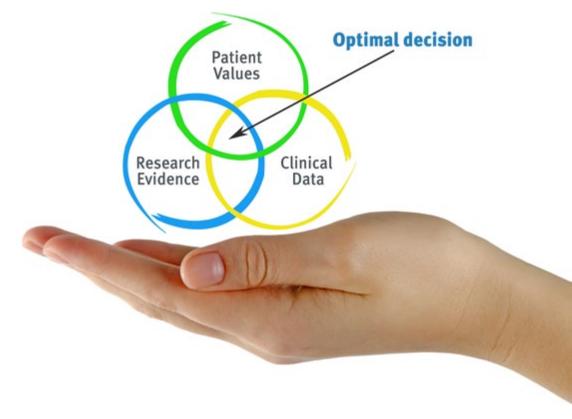


## tech 22 | Methodology

#### 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.





### **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**

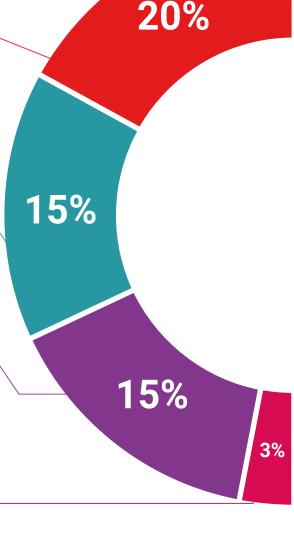
TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch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

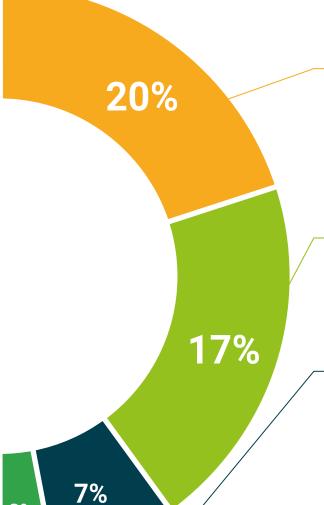
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **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 program will allow you to obtain your **Postgraduate Certificate in Viral 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 Viral Infections

Modality: online

Duration: 6 weeks

Accreditation: 4 ECTS



Mr./Ms. \_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### **Postgraduate Certificate in Viral Infections**

This is a program of 120 hours of duration equivalent to 4 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra Ia Vella, on the 28th of February of 2024



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

health confidence people education information tutors guarantee accreditation teaching institutions technology learning community commitment.



# Postgraduate Certificate Viral Infections

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 4 ECTS
- » Schedule: at your own pace
- » Exams: online

