



Postgraduate Diploma

Blood-Borne Diseases in Clinical Practice

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 19 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-blood-borne-diseases-clinical-practice

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01 Introduction

Hepatitis B and C viruses and HIV are considered the most common and dangerous blood-borne microbes. They are highly aggressive pathogens that can cause immunosuppression and even death given their assault on the organism. Thanks to the advances made in infectious diseases in clinical practice, today there are highly effective treatments that help alleviate the effects of these diseases, contributing, if not to their cure, to a significant improvement in the patient's health. TECH has developed a complete and comprehensive 100% online program for physicians to update on the latest developments in epidemiology, and that way, they can hone their skills in multi-resistance and the application of the most innovative and effective vaccines for each case.



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Highly aggressive blood-borne pathogens can cause serious consequences for the patient's health. These contagions occur when a healthy person comes into direct contact with the blood and/or body fluids of an infected person. Among the most common are Hepatitis (B and C), HIV/AIDS and Tuberculosis, three diseases that, in just two decades, have caused millions of deaths worldwide. However, continuous research in infectious diseases and medicine has established increasingly effective therapeutic guidelines and prevention strategies to clinically treat these infections.

In light of this, TECH has designed a novel and intensive program that precisely gathers all the latest developments in a 475-hour academic experience. The result is this Postgraduate Diploma in Blood-Borne Diseases in Clinical Practice, a dynamic and comprehensive course for physicians to delve into the advances in the epidemiology of infectious diseases, guidelines for multi-resistance, the latest vaccines and arbovirosis. It will also focus on the benefits of administering certain treatments and the recommendations for each case.

Over six months, our students will have unlimited access to the best theoretical, practical and additional content, designed by a teaching team versed in the subject that will also be at their absolute disposal to guide them throughout the program and resolve any of their doubts. So, through a 100% online academic experience at the forefront of the medical field, our students will be sure to update their knowledge from wherever they want, without schedules or face-to-face classes, and from any device with an Internet connection.

This Postgraduate Diploma in Blood Borne Diseases in Clinical Practice contains the most complete and up-to-date scientific program on the market. The most important features include:

- Case studies presented by experts in infectious diseases in clinical practice
- 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



You will work intensively on updating your knowledge over 475 hours of the best theoretical, practical and additional material"



If you are looking for a program that will bring you up to date with the latest developments in Hepatitis, HIV and Tuberculosis in a dynamic and exhaustive way in only six months"

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

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby students must try to solve the different professional practice situations that arise during the academic year. To that end, they will be assisted by an innovative, interactive video system created by renowned and experienced experts.

You will have unlimited access to the Virtual Campus where all the content will be hosted from the beginning of the academic program.

The best program in the current academic landscape to update your skills in multiresistance and vaccine use.







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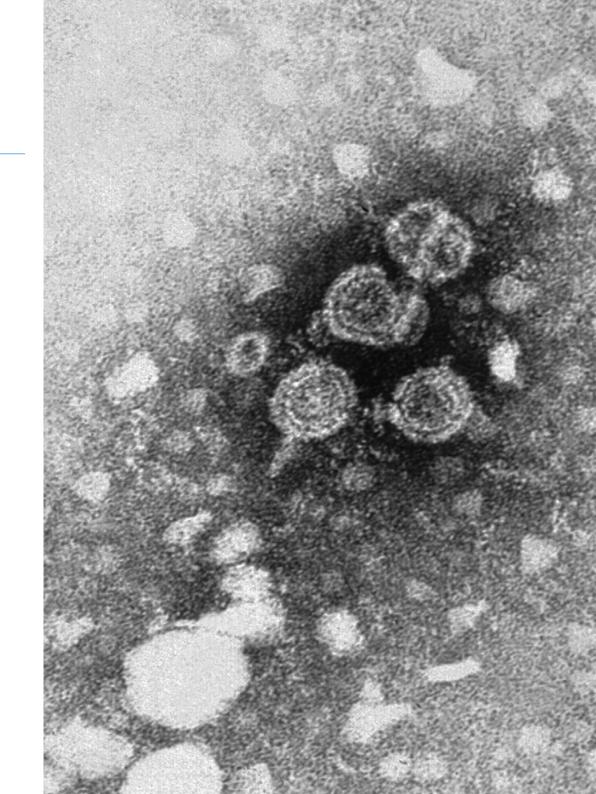


General objectives

- Acquire up-to-date knowledge of the latest developments in blood-borne diseases in clinical practice
- Delve into the latest clinical advances in treatments and the most cutting-edge and effective diagnostic techniques to date



Would you like to hone your skills in running culture tests to determine bacterial growth? Enroll in this Postgraduate Diploma and you will master these tests to perfection"





Specific objectives

Module 1. Epidemiology of Infectious Diseases

- Know the epidemiological, economic, social and political conditions of countries with major infectious diseases
- Identify the different taxonomies of infectious agents, as well as the properties of microorganisms
- Gain in-depth knowledge of chemical and physical agents in microorganisms
- Know the indications and interpretations of a microbiological study, understanding all the technical aspects

Module 2. Occupational Accidents and Blood-Borne Pathogens

- Address the important role of microbiology and the infectologist in the control of infectious diseases
- Describe the main elements that favour occupational accidents and the transmission of blood-borne pathogens
- Analyze the diagnostic and therapeutic approach to accidents involving blood

Module 3. Hepatitis and HIV/AIDS and Tuberculosis Co-Infection

- Characterize the clinical picture, viral markers, evolution and treatment of hepatitis, tuberculosis and HIV/AIDS infections
- Understand in detail the clinical manifestations of co-infection at pulmonary and extrapulmonary levels
- Evaluate the comprehensive care received by patients with infections, co-infections and therapeutic considerations
- Consider other antituberculosis treatments in patients with tuberculosis/HIV/AIDS co-infection

Module 4. Multi-Resistance and Vaccines

- · Identify the acquired genetic mechanisms that lead to antimicrobial resistance
- Gain a deeper understanding of the various infections that have developed resistance to antiviral drugs
- Know the general aspects of vaccination, as well as its immunological basis, its production process and the risk for people
- Establish the correct method for the use of vaccines

Module 5. Viral Hemorrhagic Fevers and Arboviruses

- Quickly identify viral hemorrhagic fevers and the vaccines that target these diseases
- Understand the diagnostic approach to hemorrhagic fevers
- Gain an overview of the types of hemorrhagic fevers that concern the world, such as dengue, chikungunya, zika, and others





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Management



Dr. Díaz Pollán, Beatriz

- Specialist in the area of Infectious Diseases at La Paz University Hospita
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University.
- University Expert in community and nosocomial infections from the CEU Cardenal Herrera University
- University Expert in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology from CEU Cardenal Herrera University
- University expert in chronic infectious pathologies and imported infections from CEU Cardenal Herrera University
- Degree in Medicine and Surgery from the Autonomous University of Madrid.

Professors

Dr. Rico, Alicia

- Specialist in the Microbiology and Parasitology Department, La Paz University Hospital, Madrid. 2020
- Degree in Medicine from the Complutense University Madrid. 1998
- 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 Since 2007
- Teaching Collaborator, Department of Medicine, UAM. Since 2015

Dr. Loeches Yagüe, María Belén

- Specialist in the area of Infectious Diseases at La Paz General University Hospital
- Doctorate in Medicine from the Autonomous University Madrid
- Degree in Medicine from the Complutense University of Madrid.
- Master's Degree in Theoretical and Practical Learning in Infectious Diseases
- Specialised Training in Microbiology and Infectious Diseases
- Professor of Infectious Diseases, Infanta Sofía University Hospital, Madrid

Dr. Ramos, Juan Carlos

- Doctor at La Paz University Hospital
- · Doctorate in Medicine, University of Alcala
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Master's Degree in Infectious Diseases in Intensive Care from the Fundación Universidad-Empresa Valencia.
- Author of Several Scientific Publications

Dr. Arribas López, José Ramón

- Department Head of the Infectious Diseases and Clinical Microbiology Unit at the Hospital Universitario La Paz.
- Coordinator of the High-Level Isolation Unit at the Hospital 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
- Doctorate in Medicine from the Autonomous University Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Mora Rillo, Marta

- Specialist in the area of Infectious Diseases at La Paz University
- Clinical Teaching Collaborator in the Department of Medicine. Autonomous University of Madrid
- Doctorate in Medicine from the Autonomous University Madrid
- Degree in Medicine and Surgery from the University of Zaragoza
- Master's Degree in Infectious Diseases in Intensive Care by the University of Valencia
- Online Master in Infectious Diseases and antimicrobial treatment by CEU Cardenal Herrera University.
- Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- Postgraduate Diploma in Emerging and High-Risk Virus Pathology, Autonomous University of Madrid
- Expert in Tropical Medicine from the Autonomous University Madrid





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Module 1. Epidemiology of Infectious Diseases

- 1.1. Epidemiological, Economic and Social Conditions by Continent that Favor the Emergence of Infectious Diseases
 - 1.1.1. Africa
 - 1.1.2. America
 - 1.1.3. Europe and Asia
- 1.2. New and Emerging Diseases by Continent
 - 1.2.1. Morbidity and Mortality from Infectious Diseases in Africa
 - 1.2.2. Morbidity and Mortality from Infectious Diseases in the Americas
 - 1.2.3. Morbidity and Mortality from Infectious Disease in Asia
 - 1.2.4. Morbidity and Mortality from Infectious Diseases in Europe
- 1.3. The Taxonomy of Infectious Agents
 - 1.3.1. Viruses
 - 1.3.2. Bacteria
 - 1.3.3. Fungi
 - 1.3.4. Parasites
- 1.4. Properties in Microorganisms that Cause Disease
 - 1.4.1. Pathogenic Mechanisms
 - 1.4.2. Adhesion and Multiplication Mechanisms
 - 1.4.3. Mechanisms that Enable Nutrient Acquisition from Hosts
 - 1.4.4. Mechanisms that Inhibit Phagocytic Processes
 - 1.4.5. Mechanisms that Circumvent Immune Responses
- 1.5. Microscopy and Staining
 - 1.5.1. Microscopes and Types of Microscopes
 - 1.5.2. Composite Stains
 - 1.5.3. Acid-Fast Microorganism Stains
 - 1.5.4. Stains for Cellular Structures
- 1.6. Microorganism Cultures and Growth
 - 1.6.1. General Culture Methods
 - 1.6.2. Specific Culture Methods
- 1.7. Effect of Chemical and Physical Agents on Microorganisms
 - 1.7.1. Sterilisation and Disinfection
 - 1.7.2. Disinfectants and Antiseptics Used in Practice

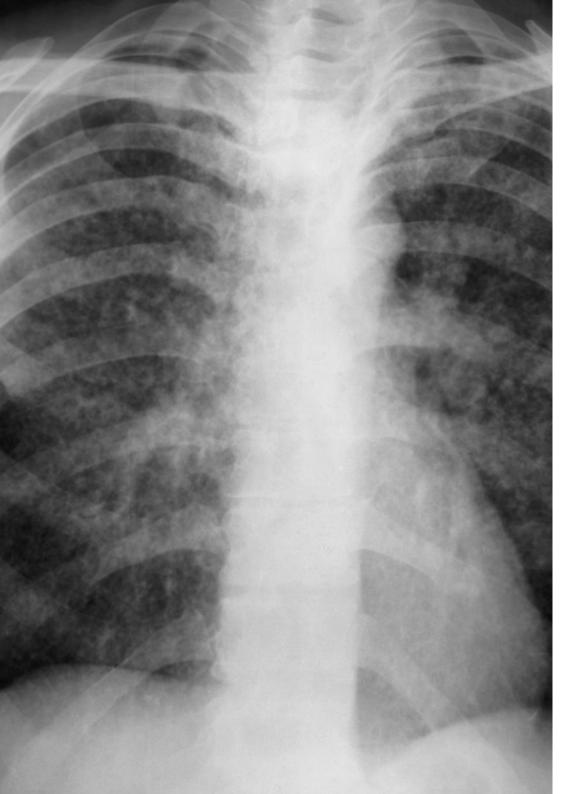
- 1.8. Molecular Biology and Its Relevance to Infectious Disease Specialists
 - 1.8.1. Bacterial Genetics
 - 1.8.2. Polymerase Chain Reaction Tests
- 1.9. Indication and Interpretation of Microbiological Studies

Module 2. Occupational Accidents and Blood-Borne Pathogens

- 2.1. Epidemiology of Blood-Borne Pathogen Infections
- 2.2. Main Blood-Borne Infections
 - 2.2.1. Hepatitis B Virus Infection
 - 2.2.2. Hepatitis C Virus Infection
 - 2.2.3. HIV/AIDS
- 2.3. Diagnostic and Therapeutic Approach to Accidents Involving Blood
 - 2.3.1. Diagnostic Case Monitoring
 - 2.3.2. Treatment
- 2.4. Universal Precautions in the Prevention of Accidents in the Workplace
- 2.5. Biosafety Measures and the Role of the Epidemiologist in Reducing Biohazards
 - 2.5.1. Biological Risk
 - 2.5.2. Biosafety

Module 3. Hepatitis and HIV/AIDS and Tuberculosis Co-Infection

- 3.1. Viral Hepatitis A
 - 3.1.1. Virus Characteristics and Replication Cycle
 - 3.1.2. Clinical Picture
 - 3.1.3. Viral Markers
 - 3.1.4. Evolution and Prognosis
 - 3.1.5. Treatment
- 3.2. Viral Hepatitis B and C
 - 3.2.1. Virus Characteristics and Replication Cycle
 - 3.2.2. Clinical Picture
 - 3.2.3. Viral Markers
 - 3.2.4. Evolution and Prognosis
 - 3.2.5. Treatment



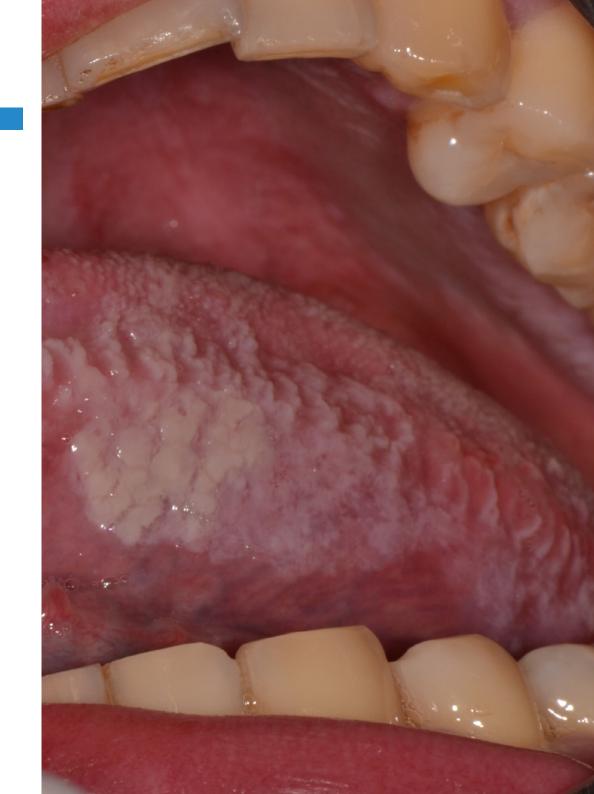
Structure and Content | 19 tech

- 3.3. Viral Hepatitis D and E
 - 3.3.1. Virus Characteristics and Replication Cycle
 - 3.3.2. Clinical Picture
 - 3.3.3. Viral Markers
 - 3.3.4. Evolution and Prognosis
 - 3.3.5. Treatment
- 3.4. Epidemiology of Morbidity and Mortality from TB/HIV/AIDS Co-Infection
 - 3.4.1. Incidence
 - 3.4.2. Prevalence
 - 3.4.3. Mortality
- 3.5. Pathobiology from TB/HIV/AIDS Co-Infection
 - 3.5. 1. Pathophysiological Alterations in Co-Infection
 - 3.5.2. Pathological Alterations
- 3.6. Clinical Manifestations of Co-Infection
 - 3.6.1. Clinical Manifestations of Pulmonary TB
 - 3.6.2. Clinical Manifestations of Extrapulmonary TB
- 3.7. TB Diagnosis in Patients Living with HIV/AIDS
 - 3.7.1. Diagnostic Studies in Pulmonary TB in HIV/AIDS Patients
 - 3.7.2. Diagnostic Studies in Pulmonary TB in HIV/AIDS Patients
- 3.8. Comprehensive Care of Patients with TB and HIV/AIDS Co-Infection and Therapeutic Considerations
 - 3.8.1. The System of Comprehensive Care for TB/HIV/AIDS Patients
 - 3.8.2. Anti-Tuberculosis Treatment Considerations in Patients with TB/HIV/AIDS Co-Infection
 - 3.8.3. Anti-Tuberculosis Treatment Considerations in Patients with TB/HIV/AIDS Co-Infection
 - 3.8.4. The Issue of Anti-Tuberculosis and Anti-Retroviral Resistance in These Patients

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Module 4. Multi-Resistance and Vaccines

- 4.1. The Silent Epidemic of Antibiotic Resistance
 - 4.1.1. Globalisation and Resistance
 - 4.1.2. Change from Susceptible to Resistant of the Microorganisms
- 4.2. The Main Genetic Mechanisms of Antimicrobial Resistance
 - 4.2.1. Describe the Main Mechanisms of Antimicrobial Resistance
 - 4.2.2. Selective Antimicrobial Pressure on Antimicrobial Resistance
- 4.3. Superbugs
 - 4.3.1. Pneumococcus Resistant to Penicillin and Macrolides
 - 4.3.2. Multidrug-Resistant Staphylococci
 - 4.3.3. Resistant Infections in Intensive Care Units (ICUs)
 - 4.3.4. Resistant Urinary Tract Infections
 - 4.3.5. Other Multi-Resistant Microorganisms
- 4.4. Resistant Viruses
 - 4.4.1. HIV
 - 4.4.2. Influenza
 - 4.4.3. Hepatitis Viruses
- 4.5. Multidrug-Resistant Malaria
 - 4.5.1. Chloroquine Resistance
 - 4.5.2. Resistance to Other Antimalarials
- 4.6. The Main Genetic Studies of Antimicrobial Resistance
 - 4.6.1. Interpretation of Resistance Studies
- 4.7. Global Strategies for Reducing Antimicrobial Resistance
 - 4.7.1. The Control of Prescribing Antibiotics
 - 4.7.2. Microbiological Mapping and Clinical Practice Guidelines
- 4.8. Overview of Vaccines
 - 4.8.1. Immunological Basis of Vaccination
 - 4.8.2. The Process of Vaccination Production
 - 4.8.3. Quality Control of Vaccines
 - 4.8.4. Vaccine Safety and Major Adverse Events
 - 4.8.5. Clinical and Epidemiological Studies for Vaccine Approval



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- 4.9. The Use of Vaccines
 - 4.9.1. Vaccine-Preventable Diseases and Vaccination Programmes
 - 4.9.2. Global Experiences of the Effectiveness of Vaccination Programmes
 - 4.9.3. Vaccine Candidates for New Diseases

Module 5. Viral Hemorrhagic Fevers and Arboviruses

- 5.1. Viral Hemorrhagic Fevers
 - 5.1.1. Epidemiology
 - 5.1.2. Classification
 - 5.1.3. Diagnostic Approach to Viral Hemorrhagic Fevers
 - 5.1.4. Vaccine Development for New Diseases
 - 5.1.5. Measures to Control Viral Hemorrhagic Fevers
- 5.2. Hemorrhagic Fever Caused by Ebola
 - 5.2.1. Characteristics and Replicative Cycle of the Virus
 - 5.2.2. Clinical Picture
 - 5.2.3. Diagnosis
 - 5.2.4. Treatment
- 5.3. South American Hemorrhagic Fevers
 - 5.3.1. Characteristics and Replicative Cycle of the Virus
 - 5.3.2. Clinical Picture
 - 5.3.3. Diagnosis
 - 5.3.4. Treatment
- 5.4. Arbovirosis
 - 5.4.1. Epidemiology
 - 5.4.2. Vector Control
 - 5.4.3 Other Arboviroses
- 5.5. Yellow Fever
 - 5.5.1. Concept
 - 5.5.2. Replicative Cycle of the Virus
 - 5.5.3. Clinical Manifestations
 - 5.5.4. Diagnosis
 - 5.5.5. Treatment

- 5.6. Dengue
 - 5.6.1. Concept
 - 5.6.2. Replicative Cycle of the Virus
 - 5.6.3. Clinical Manifestations
 - 5.6.4. Diagnosis
 - 5.6.5. Treatment
- 5.7. Chikungunya
 - 5.7.1. Concept
 - 5.7.2. Replicative Cycle of the Virus
 - 5.7.3. Clinical Manifestations
 - 5.7.4. Diagnosis
 - 5.7.5. Treatment
- 5.8. Zika
 - 5.8.1. Concept
 - 5.8.2. Replicative Cycle of the Virus
 - 5.8.3. Clinical Manifestations
 - 5.8.4. Diagnosis
 - 5.8.5. Treatment



A unique opportunity to implement the most innovative clinical strategies in infectious diseases in your practice to offer a cutting-edge service, based on the latest scientific and medical developments"





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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.



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 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.



Methodology | 27 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 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.

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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.









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This private qualification will allow you to obtain a **Postgraduate Diploma in Blood-Borne Diseases in Clinical Practice** 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** private qualification 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 Diploma in Blood-Borne Diseases in Clinical Practice

Modality: online

Duration: 6 months

Accreditation: 19 ECTS



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

Postgraduate Diploma in Blood-Borne Diseases in Clinical Practice

This is a private qualification of 570 hours of duration equivalent to 19 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 la Vella, on the 28th of February of 2024



^{*}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 commitments



Postgraduate Diploma

Blood-Borne Diseases in Clinical Practice

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 19 ECTS
- » Schedule: at your own pace
- » Exams: online

