

Postgraduate Diploma
Infectious Diseases and
International Health





Postgraduate Diploma Infectious Diseases and International Health

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-infectious-diseases-international-health

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01

Introduction

International health has been seriously affected throughout history due to the uncontrolled development of infectious diseases, the most frequent case being that of COVID-19 and the serious devastation it caused worldwide. Faced with this type of situation, certainly predictable, but sometimes uncontrollable, the role of the medical specialist is fundamental, not only in terms of early differential diagnosis, but also in the immediate and correct application of the treatment that best suits the needs of the patient and the requirements of the virus. In order for you to work on perfecting these skills, TECH has decided to put together a multidisciplinary and austere Postgraduate Diploma, created with the aim of bringing you up to date through a 100% online qualification and designed by experts in Infectious Diseases.





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A 100% online academic opportunity to learn in detail the latest medical evidence related to international infectious diseases and their epidemiology”

Infectious diseases have marked the course of world history for centuries. From smallpox, through measles, bubonic plague and the most frequent, COVID-19, these diseases have killed millions of people, left serious consequences in others and caused serious consequences for international health. Thanks to the advances that have been made in science in general and in medicine in particular, it has been possible to work on their diagnosis and treatment in an exhaustive manner, and today there are hundreds of technical, pharmacological and preventive alternatives to focus on their containment.

In this type of situation, physicians are the ones who are at the forefront, so a specialized and updated knowledge of the latest developments in this field becomes a real necessity for all of them. For this reason, having a degree like this Postgraduate Diploma in the academic market is a unique opportunity for all professionals to update their knowledge in a 100% online way. It is a multidisciplinary and austere Postgraduate Diploma with which you can delve into the epidemiology of infectious diseases, the rational use of antibiotics and the clinical management of parasitic, tropical and international traveler's diseases.

For this, you will have 600 hours of the best theoretical, practical and additional content (presented in different formats, including audiovisual), as well as self-knowledge exercises that will allow you to determine in which aspects you should deepen with greater intensity. In addition, you will be able to access all the material from the beginning of the academic activity and from any device with an internet connection, thanks to which you will be able to customize the 6 months of the course in a way that is totally adapted to your time availability.

This **Postgraduate Diploma in Infectious Diseases and International Health** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Clinical cases presented by experts in Infectious Diseases
- ◆ 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 the self-assessment process can be carried out 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 on the rational use of antibiotics through an updated and intensive module based on the latest evidence in pharmacology"

“

Would you like to be updated on the latest medical news related to traveler's diarrhea? With this Postgraduate Diploma you will delve into its clinical manifestations, diagnosis and treatment”

In the virtual classroom you will find self-knowledge exercises, thanks to which you will be able to evaluate which aspects of the syllabus you need to work on more thoroughly.

A comfortable and dynamic option to update your knowledge in relation to vaccination in the international traveler.

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 provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

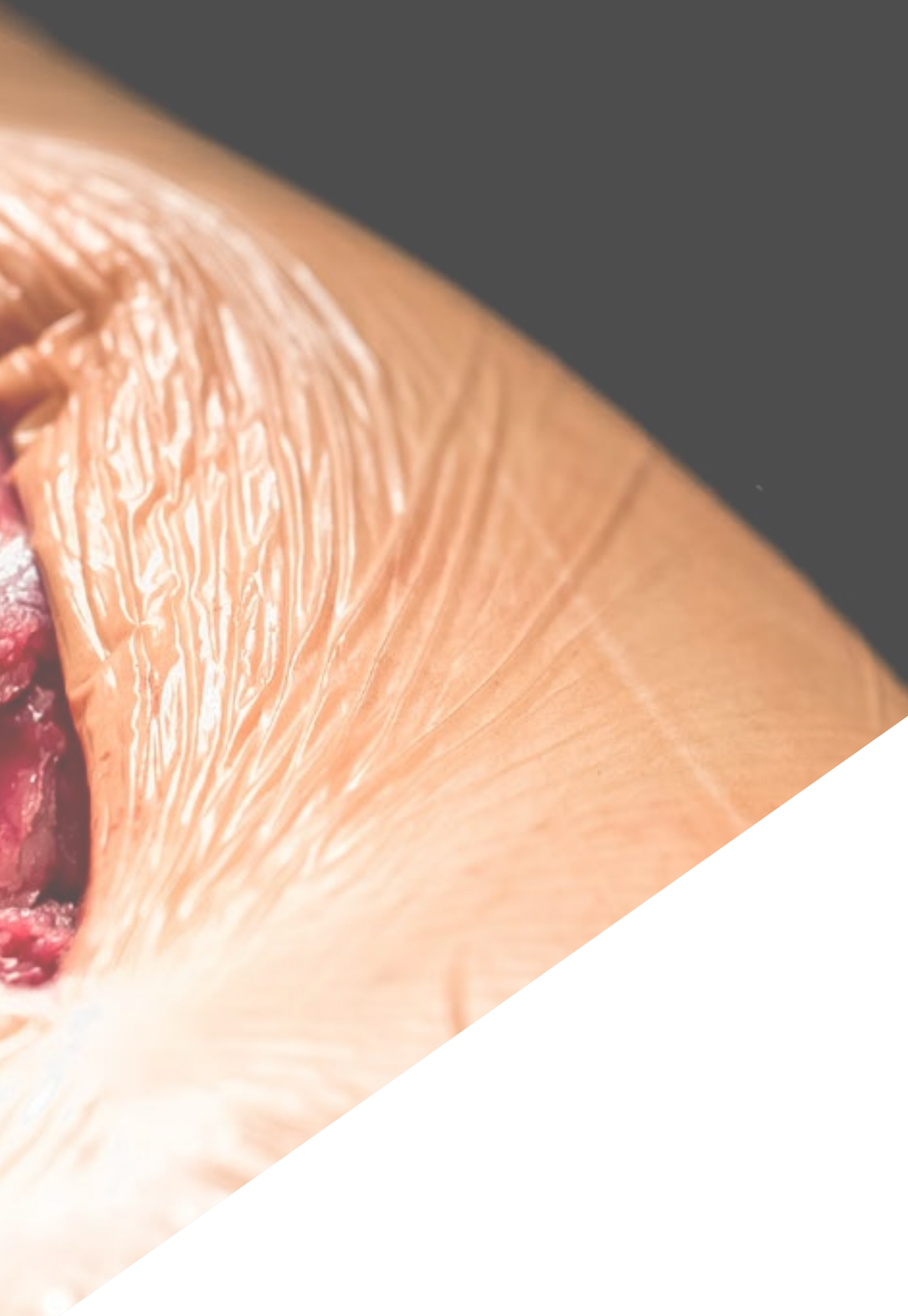
The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system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



02 Objectives

The important role played by physicians in the early diagnosis and eradication of infectious diseases is what has made TECH consider necessary the development of a Postgraduate Diploma that will facilitate their update on developments in this sector. That is why the specialist who accesses this Postgraduate Diploma will find in it the latest information related to this area and its involvement in international health, being able to meet its objective of knowing in detail the advances that have been made lately in Infectious Diseases.





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TECH's aim with the design of degrees like this is to get specialists like you to achieve their own in less time than they think"



General Objectives

- ◆ Develop a broad and up-to-date knowledge of infectious diseases and their implications for international health
- ◆ Enable graduates to keep abreast of the latest developments related to the rational use of antibiotics in the treatment of infectious diseases
- ◆ Provide the graduate with the most innovative academic tools to facilitate a quick, exhaustive and guaranteed update
- ◆ Provide the specialist with the latest information on the clinical management of the different parasitic and tropical diseases



Would you like to delve into the novelties of antiparasitic drugs for helminths? With this Postgraduate Diploma you will acquire the most updated knowledge on their classification, mechanisms of action and recommended drugs"





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. Responsible Antibiotic Use

- ◆ Convey the responsibility of the clinician in prescribing antibiotic treatment and its consequences
- ◆ Sensitize the physician to the rational use of medication and its long-term consequences for the patient and the community

Module 3. Infectious Diseases in International Travelers

- ◆ To highlight the importance of morbidity and mortality from infections in the international traveller
- ◆ Explain the health controls for international travellers
- ◆ Know and identify the most common infections for international travellers such as fever on returning from a trip or traveller's diarrhoea

Module 4. Parasitic and Tropical Diseases

- ◆ Delve deeper into the study of the most important parasitic diseases
- ◆ To highlight the importance of morbidity and mortality from infections in the international traveller
- ◆ Explain the clinical, diagnostic and treatment elements of rare or uncommon parasitic and tropical diseases

03

Course Management

Having the support of a teaching team specialized in the area of Infectious Diseases is one of TECH's ways of demonstrating its commitment to the different medical specialists. That is why, the graduate who accesses this Postgraduate Diploma will be able to get up to date with authentic professionals versed in the clinical management of patients who have suffered from different infectious pathologies. Therefore, they know in detail the most modern and effective diagnostic strategies, as well as the treatments that have shown the best results, aspects that will be reflected in the syllabus.



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Having at your disposal a teaching team versed in the clinical management of patients with infectious diseases, you will be able to update yourself based on their experience and knowledge"

Management



Dr. Díaz Pollán, Beatriz

- ◆ Faculty Specialist La Paz University Hospital
- ◆ Faculty Specialist at Hospital Clínico San Carlos
- ◆ Resident Physician in San Carlos Clinical Hospital
- ◆ Master's Degree in Clinical Medicine from the Rey Juan Carlos University
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU - Cardenal Herrera University
- ◆ Postgraduate Diploma in Community and Nosocomial Infections from CEU - Cardenal Herrera University
- ◆ Postgraduate Diploma in Chronic Infectious Diseases and Imported Infections from CEU - Cardenal Herrera University
- ◆ Postgraduate Diploma in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology from CEU - Cardenal Herrera University

Professors

Dr. Rico, Alicia

- ◆ Specialist in the Microbiology and Parasitology at La Paz University Hospital
- ◆ Assistant and co-founder of the Infectious Diseases and Clinical Microbiology Unit at La Paz University Hospital
- ◆ Team Member of PROA (Programs of reinforcement, Orientation and Support)
- ◆ Teaching Collaborator of the Department of Medicine at UAM
- ◆ Member of the Infection and Policy Committee of La Paz University Hospital
- ◆ Member of SEIMC (the Spanish Society of Infectious Diseases and Clinical Microbiology)
- ◆ Participation in several research projects
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Doctorate Courses at the Complutense University of Madrid

Dr. Loeches Yagüe, María Belén

- ◆ Specialist in the area of Infectious Diseases at La Paz General University Hospital
- ◆ Professor of Infectious Diseases at the Infanta Sofía University Hospital in Madrid. European University of Madrid
- ◆ Doctor of Medicine. Autonomous University of Madrid
- ◆ Degree in Medicine. Complutense University of Madrid
- ◆ 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

Dr. Arribas López, José Ramón

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

Dr. Ramos, Juan Carlos

- ◆ Doctor at La Paz University Hospital. Madrid
- ◆ Official Doctoral Programme in Medicine. University of Alcalá
- ◆ Degree in Medicine and Surgery. Complutense University of Madrid
- ◆ Master's Degree in Infectious Diseases in Intensive Care. University-Company Foundation Valencia
- ◆ Author of Several Scientific Publications

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
- ◆ Doctor of Medicine. Autonomous University of Madrid
- ◆ Degree in Medicine and Surgery. University of Zaragoza
- ◆ Master's Degree in Infectious Diseases in Intensive Care. University of Valencia
- ◆ Online Masters in Infectious Diseases and Antimicrobial Treatment CEU Cardenal Herrera University. 2017
- ◆ 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

04

Structure and Content

TECH uses the effective and innovative Relearning methodology in all of its degrees, thanks to which it can guarantee a natural and progressive updating of knowledge, without the need to invest extra hours in memorizing. To this, we add the hours of supplementary material in different formats that the graduate will find in the virtual classroom, which will not only allow them to contextualize the information developed throughout the syllabus, but also to delve deeper into the aspects they consider most relevant for the improvement of their medical skills.



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You will have access to the Virtual Classroom 24 hours a day from any device with an internet connection, so you them have the option during your shifts to catch up"

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. Infectious Disease Morbidity and Mortality 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. Fungus
 - 1.3.4. Parasites
- 1.4. Disease-producing Properties of Micro-organisms
 - 1.4.1. Mechanisms of Pathogenicity
 - 1.4.2. Mechanisms of Adhesion and Multiplication
 - 1.4.3. Mechanisms Enabling the Acquisition of Nutrients From The Host
 - 1.4.4. Mechanisms Inhibiting The Phagocytic Process
 - 1.4.5. Mechanisms For Evading The Immune Response
- 1.5. Microscopy and Staining
 - 1.5.1. Microscopes and Types of Microscopes
 - 1.5.2. Composite Stains
 - 1.5.3. Acid-fast Micro-organism Stainings
 - 1.5.4. Staining to Demonstrate Cellular Structures

- 1.6. Cultures and Growth of Micro-organisms
 - 1.6.1. General Culture Mediums
 - 1.6.2. Specific Culture Methods
- 1.7. Effect of Chemical and Physical Agents on Micro-organisms
 - 1.7.1. Sterilisation and Disinfection
 - 1.7.2. Disinfectants and Antiseptics Used in Practice
- 1.8. Molecular Biology and its Importance for the Infectologist
 - 1.8.1. Bacterial Genetics
 - 1.8.2. Polymerase Chain Reaction Tests
- 1.9. Indication and Interpretation of Microbiological Studies

Module 2. Responsible Antibiotic Use

- 2.1. Beta-Lactams I: Penicillins, Aminopenicillins and Beta-Lactamase Inhibitors
- 2.2. Beta-Lactams II: Cephalosporins, Monobactams and Carbapenems
- 2.3. Aminoglycosides, Tetracyclines and, Lincosamides, Rifamycins and Antifolates
- 2.4. Quinolones and Macrolides
- 2.5. Glycopeptides. New Antibiotics for Gram-Positive Infections (Lipopeptides and Oxazolidinones)
- 2.6. Anti-Fungal Agents
- 2.7. Anti-Viral Agents (Excluding Antiretrovirals and Direct Antivirals for Hepatitis C)
- 2.8. Combinations of Antimicrobials Pros and Cons

Module 3. Infectious Diseases in International Travelers

- 3.1. Vaccines in the International Traveller
 - 3.1.1. Vaccines in the International Traveller
 - 3.1.2. Vaccination Against Yellow Fever
- 3.2. Prophylaxis for Travellers to Tropical Areas
 - 3.2.1. Pharmacological Treatment According to the Geographical Area to be visited
 - 3.2.2. Glucose-6-Phosphate Dehydrogenase Deficiency and Antimalarial Drugs
 - 3.2.3. Preventive Measures for Travellers in Tropical Areas

- 3.3. Traveller's Diarrhoea
 - 3.3.1. Epidemiology
 - 3.3.2. Etiology
 - 3.3.3. Clinical Manifestations
 - 3.3.4. Diagnostic
 - 3.3.5. Treatment
- 3.4. Health Screening of International Travellers
 - 3.5. Fever on Return from International Travel
 - 3.5.1. Main Aetiologies
 - 3.5.2. Diagnostic Approach
 - 3.5.3. Imported Infectious Pathology in the International Traveller

Module 4. Parasitic and Tropical Diseases and Anti-parasitic

- 4.1. Introduction to Parasitology
 - 4.1.1. General Concepts Used in Parasitology
 - 4.1.2. Epidemiology of the Main Parasitosis and Tropical Diseases
 - 4.1.3. Classification of Parasites
 - 4.1.4. Tropical Diseases and Fever Syndrome in the Tropics
- 4.2. Malaria
 - 4.2.1. Epidemiology
 - 4.2.2. Etiological Agent
 - 4.2.3. Pathogenesis
 - 4.2.4. Clinical Picture
 - 4.2.5. Complications
 - 4.2.6. Diagnostic
 - 4.2.7. Treatment
- 4.3. Diseases from Intestinal Protozoas
 - 4.3.1. Main Intestinal Protozoa
 - 4.3.2. Diagnosis of Intestinal Protozoa
 - 4.3.3. Amebiasis and Giardiasis
- 4.4. Filarial Diseases
 - 4.4.1. Epidemiology and the Worldwide Situation
 - 4.4.2. Clinical Syndromes
 - 4.4.3. Main Filarial Diseases: Wuchereria Bancrofti, Brugia malayi, Brugia timori, Onchocerca volvulus, Loa loa, Mansonella Perstans, Mansonella Streptocerca y Mansonella Ozzardi
- 4.5. Leishmaniasis
 - 4.5.1. Cutaneous Leishmaniasis
 - 4.5.2. Leishmaniasis Disease
- 4.6. Trypanosomiasis
 - 4.6.1. African Trypanosomiasis
 - 4.6.2. American Trypanosomiasis:
- 4.7. Schistosomiasis
 - 4.7.1. Schistosoma Haematobium
 - 4.7.2. Schistosoma Mansoni
 - 4.7.3. Schistosoma Japonicum
 - 4.7.4. Schistosoma Intercalatum
- 4.8. Intestinal Parasitism
 - 4.8.1. Epidemiology
 - 4.8.2. Ascariidiosis
 - 4.8.3. Oxiuriasis
 - 4.8.4. Hookworm Disease and Necatoriasis
 - 4.8.5. Trichuriasis
- 4.9. Taeniasis Infections
 - 4.9.1. Intestinal Tapeworms
 - 4.9.2. Tissue Tapeworms

- 4.10. Antiparasitics II
 - 4.10.1. General Concepts
 - 4.10.2. Main Definitions Used in the Management of Antiparasitics
 - 4.10.3. Classifications Used by Chemical Structure, Mechanism of Action or Antiparasitic Action
 - 4.10.4. Mechanisms of action
- 4.11. Antiprotozoals
 - 4.11.1. Classification
 - 4.11.2. Mechanisms of action
 - 4.11.3. Antiparasitic Spectrum
 - 4.11.4. Pharmacokinetics and Pharmacodynamics
 - 4.11.5. Dose and Presentation
- 4.12. Antiparasitic for Helminths
 - 4.12.1. Classification
 - 4.12.2. Mechanisms of action
 - 4.12.3. Antiparasitic Spectrum
 - 4.12.4. Pharmacokinetics and Pharmacodynamics
 - 4.12.5. Dose and Presentation





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You will not find in the market a degree that suits your academic needs as well as this Postgraduate Diploma. Are you going to pass up the opportunity to take it?”

05

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

The Postgraduate Diploma in Infectious Diseases and International Health guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Infectious Diseases and International Health** 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 Diploma in Infectious Diseases and International Health**

Modality: **online**

Duration: **6 months**

Credits: **24 ECTS**



*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

online training

development

languages

virtual classroom

tech global
university

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