

# Postgraduate Certificate Food Infections





## Postgraduate Certificate Food Infections

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 7 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/food-infections](http://www.techtute.com/us/medicine/postgraduate-certificate/food-infections)

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# 01

# Introduction

One of the main challenges in the prevention and treatment of food infections is the variety and number of pathogens that can cause diseases: from Salmonella and E. Coli to Norovirus and Hepatitis A. In order to combat this wide range of pathologies, the continuous updating of specialists is a sine qua non requirement, which will be possible through this title. This way, with this program they will make an extensive journey through diseases transmitted by consumption and poor management of food, classifying them and evaluating the main etiological agents. Without a doubt, a high level preparation that can also be done 100% online.





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*A highly valuable qualification if you want to keep up to date with the latest advances in dealing with infections caused by mishandled food"*

Every year, about 48 million people get sick from eating contaminated food. There are different causes of infection, which can include viruses or bacteria. Although less common, the presence of parasites or some harmful chemical is also assigned to this group. Many of these transmissions can occur suddenly and have a limited duration, although this does not prevent special care during treatment.

This is why this Postgraduate Certificate is positioned as the tool that specialists were looking for to have a high level of preparation to face these challenging scenarios. This way, they will improve their methodology for dealing with food infections with the latest advances in their approach and increasing their diagnostic and preventive capacity.

To this end, they will analyze this typology of diseases, delving into existing classifications on pathologies. They will also evaluate the main etiological agents, such as Salmonella or Staphylococcus, in addition to sanitary measures that seek to prevent the spread of these infections.

They will have all of this and more at hand without having to go to centers or adapt to preset schedules. In this sense, TECH gives them the baton with which they will manage their own academic cycle, being advised from the first moment by a solid teaching team that will accompany them on the way.

This **Postgraduate Certificate in Food Infections** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The examination of case studies presented by experts in Food Infections
- ♦ 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 be an expert in the sanitary and socio-economic measures adopted for the control of food infections"*

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*The Postgraduate Certificate you needed to evaluate the main etiological agents, such as Salmonella or Staphylococcus”*

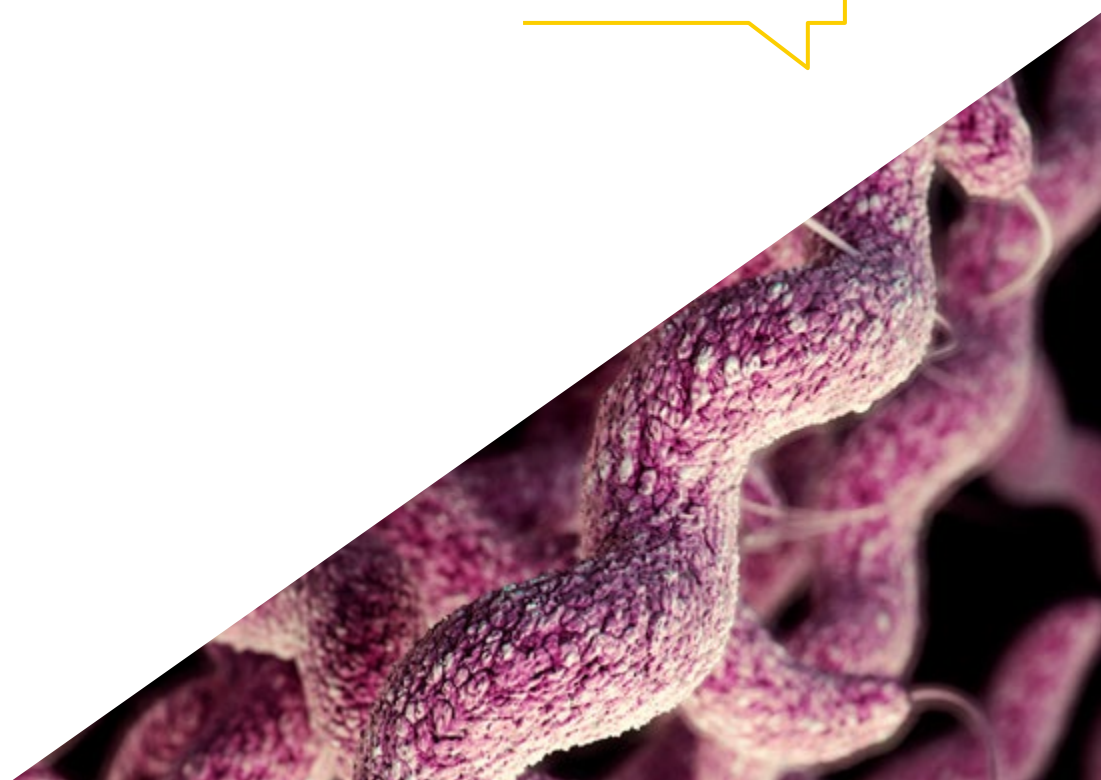
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Food poisoning, infections, toxiifections, etc., all classifications of foodborne illnesses are covered in this program.*

*You will play a fundamental role in health education, giving society the tools to prevent these infections.*



# 02 Objectives

TECH's objective with this qualification is none other than to update medical specialists with the latest tools in this field. In this way, they will be the healthcare professionals that society requires in a context of ever-increasing food infections. To do this, they will have a program that revolves around the latest scientific evidence, an advantage that positions the Postgraduate Certificate over other degrees in the market.







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*You won't find another program with such up-to-date and advanced knowledge of foodborne infections and their etiologic agents"*



## General Objectives

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- ♦ Gain in-depth knowledge of key aspects of Infectious Diseases
- ♦ Manage prevention, diagnosis and treatment of infectious diseases
- ♦ Gain in-depth knowledge of the multidisciplinary and comprehensive approach to controlling these pathologies
- ♦ Acquire the relative skills in the field of Clinical Infectious Diseases and Advanced Antibiotic Therapeutics
- ♦ Be able to apply the latest technological innovations to establish an optimal diagnostic management



*If you want to master all the epidemiological features of ETA, you're 210 hours away from getting it by enrolling in this course"*





## Specific Objectives

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- ◆ 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
- ◆ Gain knowledge of diseases transmitted by the consumption and mishandling of food
- ◆ Identify and analyze the classifications of infections caused by improperly handled food
- ◆ Evaluate the main etiological agents such as salmonella, staphylococcus, among others
- ◆ Understand the socio-economic measures taken to control foodborne infections

03

# Course Management

The teaching staff that TECH has assembled to teach the contents of this program meets the highest educational standards that the student can imagine. In this sense, it will give you all the keys on the diseases transmitted by the elements, transferring to the academic field its extensive professional experience in the field of Microbiology and Parasitology. In addition, it will be at the total disposal of the student by the Virtual Campus to advise them in any doubt.





“

*Experts in Microbiology or Parasitology  
will guide you in your academic progress”*

## Management



### Díaz Pollán, Beatriz

- ◆ Specialist in internal medicine with experience in infectious diseases
- ◆ FEA, Department of Internal Medicine, Infectious Diseases Unit, La Paz University Hospital
- ◆ Associate Physician, Department of Internal Medicine, Infectious Diseases Unit, San Carlos Hospital
- ◆ Associate Researcher in several research projects
- ◆ Author of dozens of scientific articles on Infectious Diseases
- ◆ Master's Degree in Infectious Diseases and Antimicrobial Therapy from CEU Cardenal Herrera University
- ◆ Specialist in community and non-transmissible infections from the CEU Cardenal Herrera University
- ◆ Specialist's Degree in Infectious Diseases and Chronic and Imported Infectious Diseases from CEU Cardenal Herrera University
- ◆ Member of the Spanish Society of Infectious Diseases and Clinical Microbiology

## Professors

### Dr. Rico Nieto, Alicia

- ◆ Microbiology and Parasitology Specialist and Infectious Diseases Expert
- ◆ Attending Physician in the Infectious Diseases Unit at La Paz University Hospital,
- ◆ Faculty Specialist in Microbiology Medicine, La Paz University Hospital, Madrid
- ◆ Researcher at the Research Institute of La Paz University Hospital, Madrid
- ◆ Author of numerous scientific publications
- ◆ Member of: Board of Directors of the Osteoarticular Infection Study Group and the Spanish Society of Infectious Diseases and Clinical Microbiology

### Dr. Loeches Yagüe, María Belén

- ◆ Attending Physician in the Infectious Diseases Unit at La Paz General: University Hospital, Madrid
- ◆ Doctorate in Medicine from the Autonomous University Madrid
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Master in Theoretical and Practical Learning in Infectious Diseases from the Complutense University of Madrid
- ◆ Specialized training in Microbiology and Infectious Diseases, Gregorio Marañón General University Hospital
- ◆ Professor of Infectious Diseases, Infanta Sofía University Hospital, Madrid

**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
- ◆ Director of the the Research Institute of La Paz University Hospital (IdiPAZ)
- ◆ Director of La Paz University Hospital's Foundation
- ◆ Doctor in the Infectious Diseases Unit at Barnes Hospital in the USA
- ◆ Doctor of Medicine, UAM
- ◆ Member of:: Interministerial Committee for the management of the Ebola crisis

**Dr. Mora Rillo, Marta**

- ◆ Faculty Specialist of Internal Medicine, La Paz University Hospital, Madrid
- ◆ Clinical Researcher in Infectious Diseases
- ◆ Author of various scientific articles on Infectious Diseases
- ◆ Collaborating Teacher in university studies of Medicine
- ◆ Doctorate in Medicine from the Autonomous University Madrid
- ◆ Master's Degree in Infectious Diseases in Intensive Care by the University of Valencia
- ◆ Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- ◆ Postgraduate Diploma in Emerging and High Risk Virus Pathology, Universidad Autónoma de Madrid

**Dr. Branches Ramos, Juan Carlos**

- ◆ Internal Medicine Specialist
- ◆ Attending Physician in the Infectious Diseases Unit at La Paz University Hospital,
- ◆ Intern at the University Hospital Sanitas La Zarzuela Madrid
- ◆ PhD in Medicine and Surgery from the University of Alcalá de Henares
- ◆ Master's Degree in Infectious Diseases in Intensive Care from the Fundación Universidad-Empresa from the University of Valencia

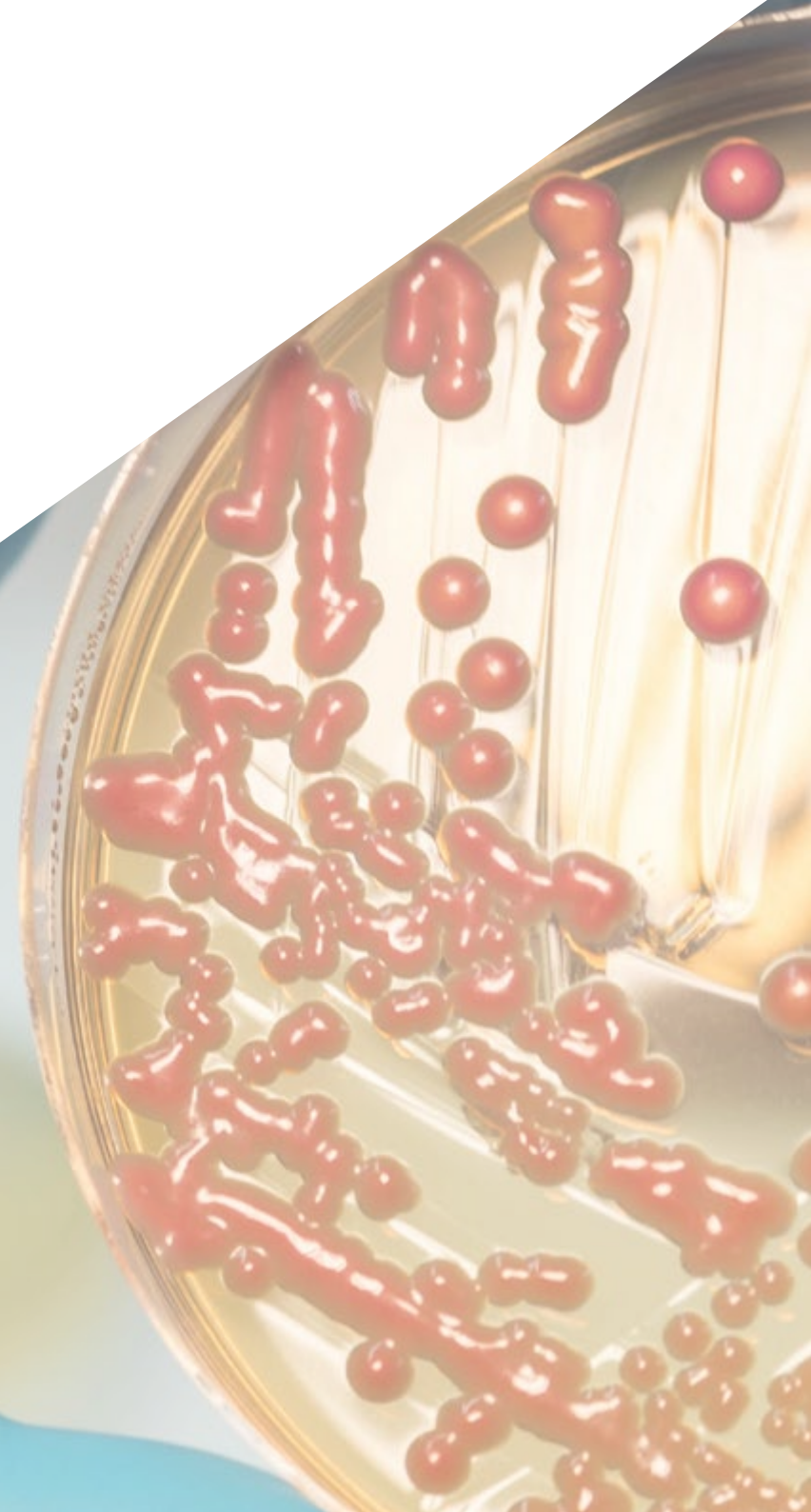


*Take the step to get up to date  
on the latest developments in  
Food Infections"*

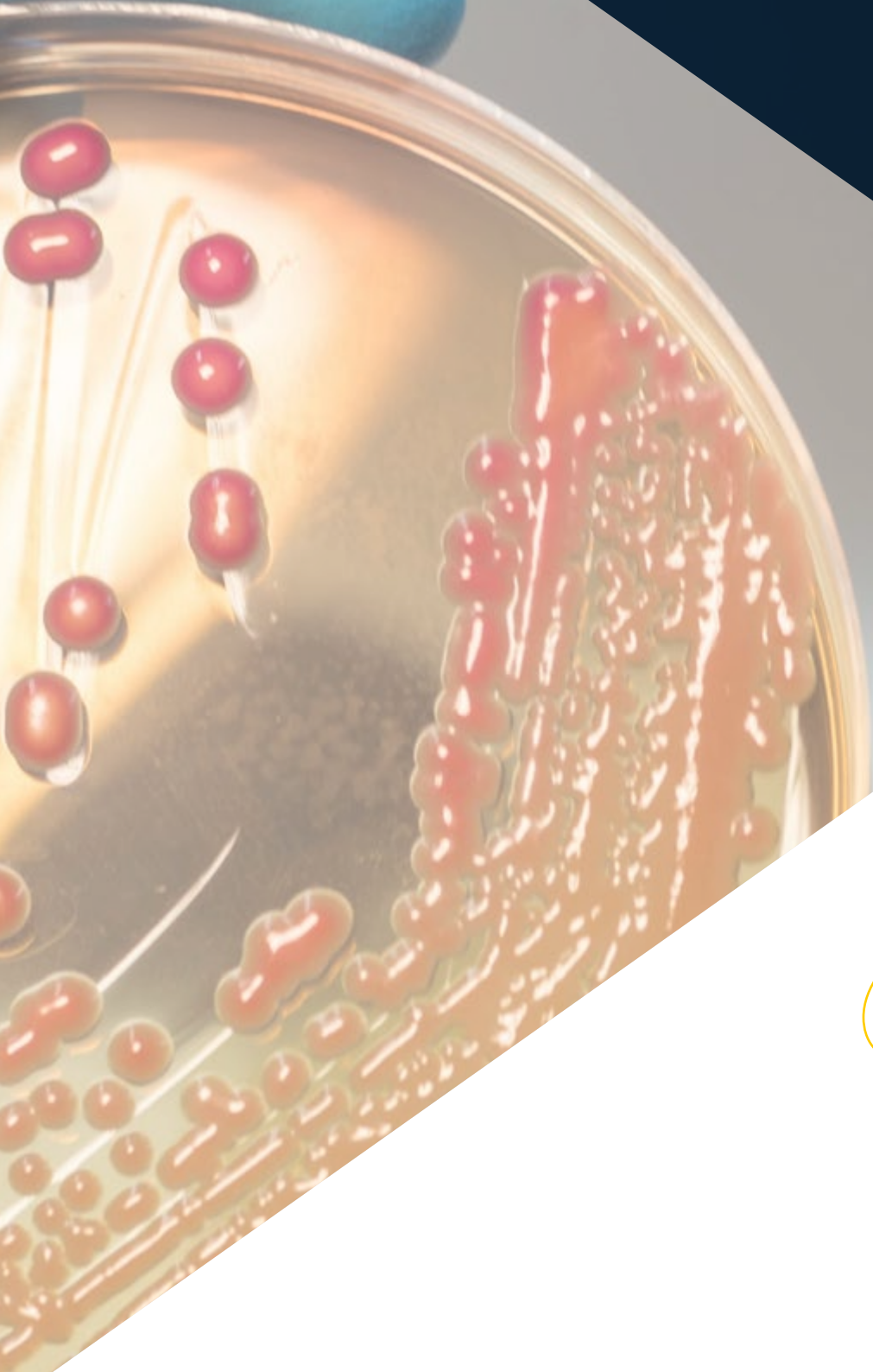
# 04

## Structure and Content

The syllabus for the Postgraduate Certificate in Food Infections has been closely monitored by the teaching team to contain everything necessary and more in the interests of a successful acquisition of skills. In addition, it uses the latest educational innovations in the online field to offer an academic experience far beyond memorization. In this sense, thanks to the reiteration of concepts in dynamic interactive resources, these will be internalized much faster by students, saving them time.







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*The most comprehensive view on food infections is in this syllabus, for which you will first delve into the Microscopy or in the culture of microorganisms"*

## 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 Infectologists
  - 1.8.1 Bacterial Genetics
  - 1.8.2 Polymerase Chain Reaction Tests
- 1.9. Indication and Interpretation of Microbiological Studies

## Module 2. Food-Borne Infections

- 2.1. Food-Borne Diseases, a Modern Day Health Problem
  - 2.1.1 Epidemiology
  - 2.1.2 Causes of Foodborne Infections
- 2.2. Classification of Foodborne Infections
  - 2.2.1 Intoxications
  - 2.2.2 Infections
  - 2.2.3 Toxi-infections
- 2.3. Main Aetiological Agents
  - 2.3.1 Salmonella
  - 2.3.2 Staphylococci
  - 2.3.3 *Listeria monocytogenes*
  - 2.3.4 *Escherichia coli*, 0157;H7
  - 2.3.5 *Clostridium botulinum*
- 2.4. Foodborne Diseases and their Socio-Economic Impact
  - 2.4.1 Socio-Economic Consequences of the ATS
- 2.5. Main Measures for the Control of Food-Borne Infections
  - 2.5.1 Primary Prevention of ATS
  - 2.5.2 Health Education
  - 2.5.3 State Health Control and ATS

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 Certificate in Food Infections guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Food 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 Food Infections**

Modality: **online**

Duration: **6 weeks**

Accreditation: **7 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 quality  
development languages  
virtual classroom



## Postgraduate Certificate Food Infections

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# Postgraduate Certificate

## Food Infections

