

# Postgraduate Certificate

## Parasitology in the Food Industry



## Postgraduate Certificate Parasitology in the Food Industry

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/nutrition/postgraduate-certificate/parasitology-food-industry](http://www.techtute.com/pk/nutrition/postgraduate-certificate/parasitology-food-industry)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Structure and Content

---

*p. 12*

04

Methodology

---

*p. 16*

05

Certificate

---

*p. 24*

# 01

# Introduction

Nowadays, the growing concern about the risks associated with foodborne parasites has become increasingly relevant within the food industry, which is why it has decided to integrate the virtues offered by Parasitology for the identification, prevention and control of these organisms that affect food safety. For this reason, the demand for professionals with expertise in the application of this science in the food market is increasing and with this program, students will become the best. This, thanks to the complete curriculum that offers very comprehensive topics in this area and which can be accessed through a 100% online methodology, a benefit that will allow them to have greater control over their time.





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*This is the best University Course for professionals who wish to grow and specialize professionally in the field of Parasitology. Don't miss this opportunity and enroll now"*



This Postgraduate Certificate program offers students interested in professional growth a specific focus on Parasitology and its application in food production, addressing topics such as the effects that these organisms produce in food and their impact on human health. In addition, the student will be able to assimilate all these concepts and carry out mitigation strategies for this type of risks.

The agenda will also include topics related to the identification and management of parasites in the food industry, which will provide techniques for their detection, prevention and control. In addition, the implementation of good hygienic and food handling practices will be further developed in order to guarantee the safety and quality of these products.

With this, the student will be able to expand their knowledge and acquire a comprehensive preparation in this field, so that they will be fully trained to face the challenges that currently exist in the food industry in terms of food safety and quality.

All this, thanks to the innovative Relearning methodology, which allows students to study from home and have greater time flexibility, since they will have access 24 hours a day to the multimedia resources they will find in the online campus. In addition, you will be able to strengthen your competencies and increase your ability to solve problems, since you will analyze practical cases that will place you in a real scenario.

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

- ◆ The development of case studies presented by experts in Parasitology in the Food Industry
- ◆ 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 work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection

“*Do you want to achieve excellence in the field of Parasitology? Start now and discover how to achieve it with this degree*”

“

*Master food parasite diagnostic techniques and gain advanced skill in interpreting results through the hands-on approach of this program"*

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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*At your own pace and online you will be able to increase your knowledge in this area.*

*Delve into the essential terms of Parasitology and propel your career to the next level.*



# 02

# Objectives

The main objective of this educational program is to provide students with an update on the scientific aspects related to the study of parasites and the proper way to prevent them in food production. For this, clear and relevant definitions that have a direct impact in the field will be provided, which will allow students to obtain the necessary tools to apply what they have learned in a work environment.





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*Thanks to the knowledge you will have about the parasitological risks that can occur in the production chain, you will be able to carry out strategies to mitigate them”*



## General Objectives

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- ◆ Identify and understand biology as an experimental science through the application of the scientific method.the application of the scientific method
- ◆ Explain basic knowledge and know how to apply it to population growth and sustainable exploitation of natural resources
- ◆ Know and apply the procedures for toxicity assessment
- ◆ Contribute to consumer protection within the framework of food safety

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*Open the door to access new job offers and be part of the professionals of the future in the Food Industry”*





## Specific Objectives

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- ◆ Know the microbiology and parasitology concepts and procedures relevant to the food industry
- ◆ Identify, analyze and evaluate parasitological risks throughout the food chain, from raw material collection to the distribution of the processed product to the final consumer
- ◆ Analyze and understand the main preventive measures regarding microbiological and parasitological contamination of food at any stage of the food chain. of the food chain
- ◆ Know and identify the main foodborne parasites that cause human illnesses
- ◆ Identify and apply the main techniques for sampling and identification of parasites in food
- ◆ Identify and apply the main techniques for sampling and characterization of parasites in food

03

# Structure and Content

The curriculum of this Postgraduate Certificate has been designed by recognized experts in the Food Industry, with the objective of offering a first class education to the students. Thus, participants will acquire scientific knowledge about the technical concepts of Parasitology and the affections that can be caused within the food production chain if they are not properly treated. This learning will be carried out through the study of multimedia resources and the analysis of practical cases, which will allow students to improve their professional skills in this field.







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*With this Postgraduate Certificate in Parasitology, you will learn about the different species of parasites that can affect food and how to prevent each one”*



## Module 1. Food Parasitology

- 1.1. Introduction to food parasitology
  - 1.1.1. Fundamental Concepts of Parasitology
  - 1.1.2. Effects of Parasites in Food and Impact on Human Health
  - 1.1.3. Socioeconomic Impacts of Foodborne Parasites
  - 1.1.4. General characteristics of the major groups of parasites
    - 1.1.4.1. Life cycles of the major groups of parasites
- 1.2. General Characteristics of Protozoa in food
  - 1.2.1. Digestive Tract Amoebae
    - 1.2.1.1. Entamoeba Histolytica: Morphology, Function, Transmission Mechanisms and Biological Cycle
    - 1.2.1.2. Other amoebae of interest in food: entamoeba hartmanii and Entamoeba coli
  - 1.2.2. Digestive Tract scourge
    - 1.2.2.1. Giardia: Morphology, Function, Transmission Mechanisms and Biological Cycle
    - 1.2.2.2. Other Flagellates in Food
  - 1.2.3. Digestive Tract Apicomplexa
    - 1.2.3.1. General Biological Cycle
    - 1.2.3.2. Cryptosporidium: Morphology, Function, Transmission Mechanisms and Biological Cycle
    - 1.2.3.3. Cyclospora Cayetanensis: Morphology, Function, Transmission Mechanisms and Biological Cycle
    - 1.2.3.4. Isospora Belli: Morphology, Function, Transmission Mechanisms and Biological Cycle
  - 1.2.4. Digestive Tract Ciliates
    - 1.2.4.1. Balantidium Coli
- 1.3. General Characteristics of Helminths in food
  - 1.3.1. General Characteristics of Helminths
    - 1.3.2. General Characteristics of Trematodes
      - 1.3.2.1. Hepatic trematodes: fasciola hepatica, Dicrocoelium dendriticum, Clonorchis
      - 1.3.2.2. Pulmonary trematodes: pargonimus westermanii
      - 1.3.2.3. Intestinal trematodes: fasciolopsis buski
      - 1.3.2.4. Preventive Measures and Treatment of Diseases Caused by Trematodes
    - 1.3.3. General Characteristics of Cestodes
      - 1.3.3.1. Digestive cestodes: diphyllobotrium latum
      - 1.3.3.2. Tapeworms: taenia solium and Taenia saginata
    - 1.3.4. Cestode Preventive Measures and Treatments
  - 1.4. Parasites Associated with Fish Products
    - 1.4.1. Protozoa in Fish Products
      - 1.4.1.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
      - 1.4.1.2. Most Important Species
      - 1.4.1.3. Preventive and Remedial Measures
    - 1.4.2. Helminths in Fish Products
      - 1.4.2.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
      - 1.4.2.2. Most Important Species
      - 1.4.2.3. Preventive and Remedial Measures
    - 1.4.3. General Identification Measures
    - 1.4.4. Nematodes in Fishery Products: Life Cycle, Transmission, Reservoirs and Morphology
      - 1.4.4.1. Most Important Species
      - 1.4.4.2. Preventive and Remedial Measures
  - 1.5. Parasites Associated with Farmed Meat and Meat By-Products
    - 1.5.1. Protozoa Associated with Farmed Meat and Meat By-Products
      - 1.5.1.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
      - 1.5.1.2. Most Important Species
      - 1.5.1.3. Preventive and Remedial Measures

- 1.5.2. Helmitos Associated with Farmed Meat and Meat By-Products
  - 1.5.2.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
  - 1.5.2.2. Most Important Species
  - 1.5.2.3. Preventive and Remedial Measures
- 1.5.3. Nematodes Associated with Farmed Meat and Meat By-Products
  - 1.5.3.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
  - 1.5.3.2. Most Important Species
  - 1.5.3.3. Preventive and Remedial Measures
- 1.5.4. Identification Methods for Parasites Associated with Farmed Meat and Meat Byproducts
- 1.6. Water-Associated Parasites
  - 1.6.1. Water-Associated Protozoa
    - 1.6.1.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
    - 1.6.1.2. Study of the Most Important Species
    - 1.6.1.3. Control and Prophylaxis measures
  - 1.6.2. Water-Associated Helmitos
    - 1.6.2.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
    - 1.6.2.2. Study of the Most Important Species
    - 1.6.2.3. Control and Prophylaxis measures
  - 1.6.3. Nematodes Associated with Water Consumption
    - 1.6.3.1. General Characteristics: Biological Cycle, Transmission, Reservoirs and Morphology
    - 1.6.3.2. Study of the Most Important Species
    - 1.6.3.3. Control and Prophylaxis measures
  - 1.6.4. General Identification Methods for Parasites Associated with Water Consumption
- 1.7. Parasites associated with fruits and vegetables
  - 1.7.1. Protozoa Associated with Fruits and Vegetables Consumption
    - 1.7.1.1. General Characteristics: Morphology and Biology, Transmission Mechanisms
    - 1.7.1.2. Most Important Species
    - 1.7.1.3. Prophylaxis and Treatment Measures
  - 1.7.2. Helminths Associated with Fruits and Vegetables Consumption
    - 1.7.2.1. General Characteristics: Morphology and Biology, Transmission Mechanisms
    - 1.7.2.2. Most Important Species
    - 1.7.2.3. Prophylaxis and Treatment Measures
  - 1.7.3. Nematodes Associated with Fruits and Vegetables Consumption
    - 1.7.3.1. General Characteristics: Morphology and Biology, Transmission Mechanisms
    - 1.7.3.2. Most Important Species
    - 1.7.3.3. Prophylaxis and Treatment Measures
  - 1.7.4. Identification and Characterization Methods
- 1.8. Disease-Producing Insects and Food Spoilage
  - 1.8.1. Study of the Most Important Species
    - 1.8.1.1. General Characteristics: Biological Cycle, Transmission Mechanisms of and Morphology
    - 1.8.1.2. Prophylaxis and Remedial Measures for Insects
    - 1.8.1.3. Epidemiology and Distribution of Arthropods
  - 1.8.2. Study of the Most Important Species
    - 1.8.2.1. General Characteristics: Biological Cycle, Transmission Mechanisms of and Morphology
    - 1.8.2.2. Prophylaxis and Remedial Measures for Insects
    - 1.8.2.3. Epidemiology and Distribution of Arthropods
  - 1.8.3. Identification and Characterization Methods

- 1.9. Epidemiological Analysis of Foodborne Parasitosis
  - 1.9.1. Points of Interest on The Geographical Origin of Food and the Parasite Biological Cycle in Food Transmission
  - 1.9.2. Study of the Clinical Matters Associated with Parasites: Prepatent Period, the Appearance of Symptoms and the Presence of Asymptomatic Carriers in the Study of Food Outbreaks
  - 1.9.3. Analysis of Actual Food Outbreaks in Different Settings: Towns, Hospitals, Nursing Homes, Schools, Restaurants, Social and Family Gatherings
- 1.10. Natural Food Toxins
  - 1.10.1. The Importance of Food Spoiling Parasites
    - 1.10.1.1. The Decline in the Production and Quality of Food and Plant and Animal Raw Materials
  - 1.10.2. Pests of Plant Products and Derivatives
    - 1.10.2.1. Protozoa, Helminths and Arthropods
    - 1.10.2.2. Phytoparasites Points of Interest
  - 1.10.3. Pests of Meat Products and Derivatives
    - 1.10.3.1. Protozoa, Helminths and Arthropods
    - 1.10.3.2. Socioeconomic Issue of Parasites in Domestic Livestock, Poultry and Farm Animals
  - 1.10.4. Pests of Fish and Fish By-Products
    - 1.10.4.1. Protozoa, Helminths and Arthropods
    - 1.10.4.2. Socioeconomic interest of fish parasites





“ *The interactive and participatory teaching approach of the Relearning methodology will enable you to develop advanced problem-solving and decision-making skills*”

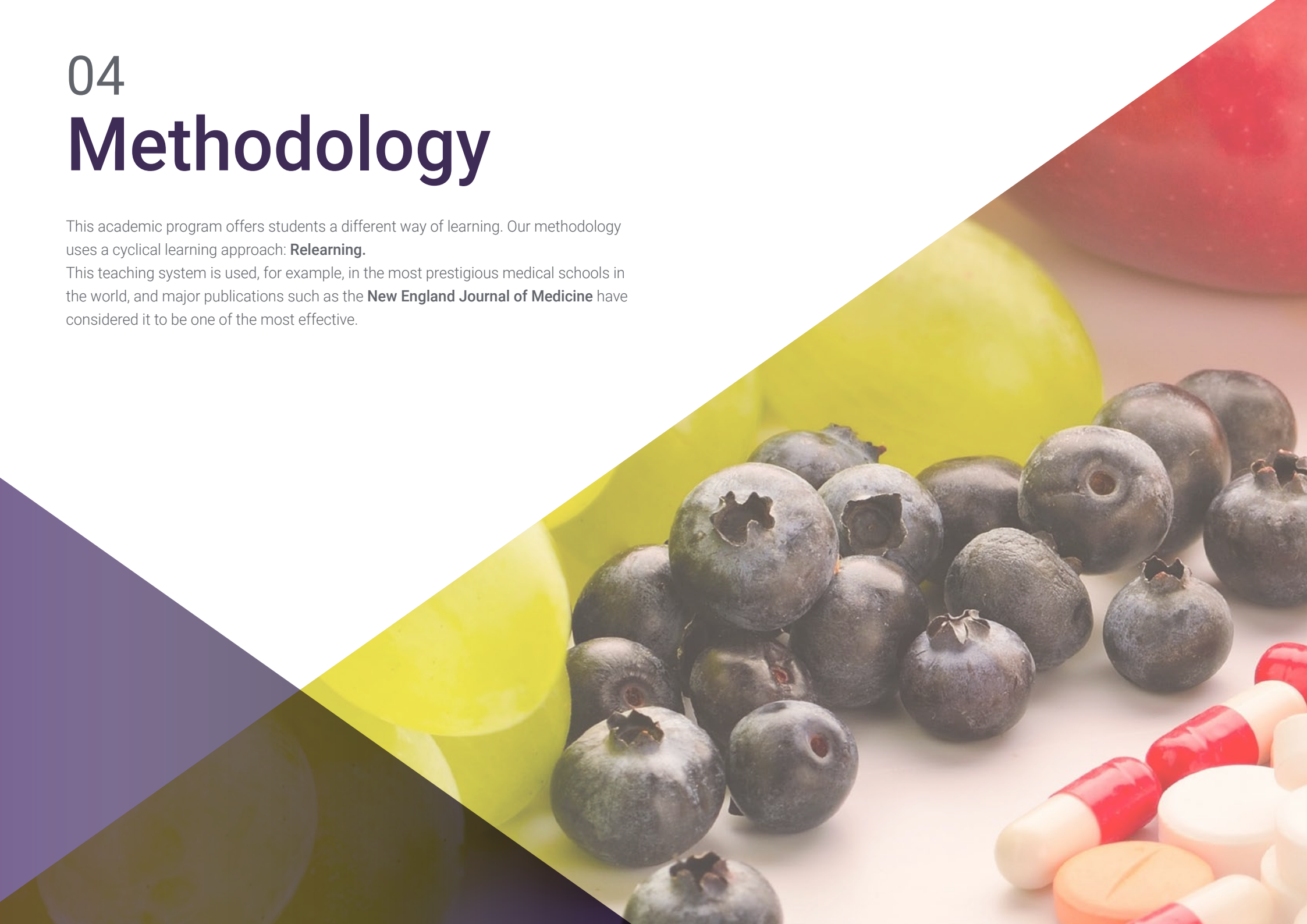


04

# 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

In a given situation, what should a professional do? 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, nutritionists can experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, 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 of professional nutritional 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. Nutritionists who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the nutritionist to better integrate knowledge into clinical practice.
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.

*The nutritionist 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.*



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 45,000 nutritionists have been trained with unprecedented success in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.



#### Nutrition Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current nutritional counselling techniques and procedures. 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.

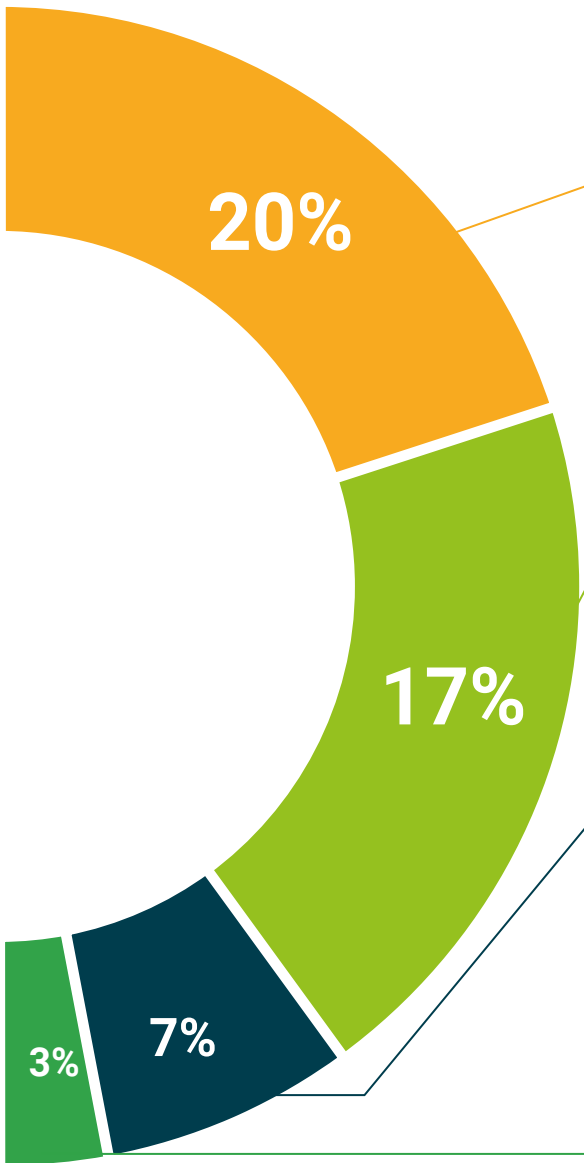
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 suggesting that observing third-party experts can be useful.

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.



# 05 Certificate

The Postgraduate Certificate in Parasitology in the Food Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*



This **Postgraduate Certificate in Parasitology in the Food Industry** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Parasitology in the Food Industry**

Official N° of Hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** technological  
university

personalized service innovation

knowledge present  
online training

development languages

virtual classroom

## Postgraduate Certificate

Parasitology in the  
Food Industry

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
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# Postgraduate Certificate

## Parasitology in the Food Industry