

# Postgraduate Certificate

## Infections in the Oncological Process





## Postgraduate Certificate

### Infections in the Oncological Process

Course Modality: **Online**

Duration: **6 weeks**

Certificate: **TECH - Technological University**

**4 ECTS Credits**

Teaching Hours: **100 hours.**

Website: [www.techitute.com/medicine/postgraduate-certificate/postgraduate-certificate-infections-oncological-process](http://www.techitute.com/medicine/postgraduate-certificate/postgraduate-certificate-infections-oncological-process)

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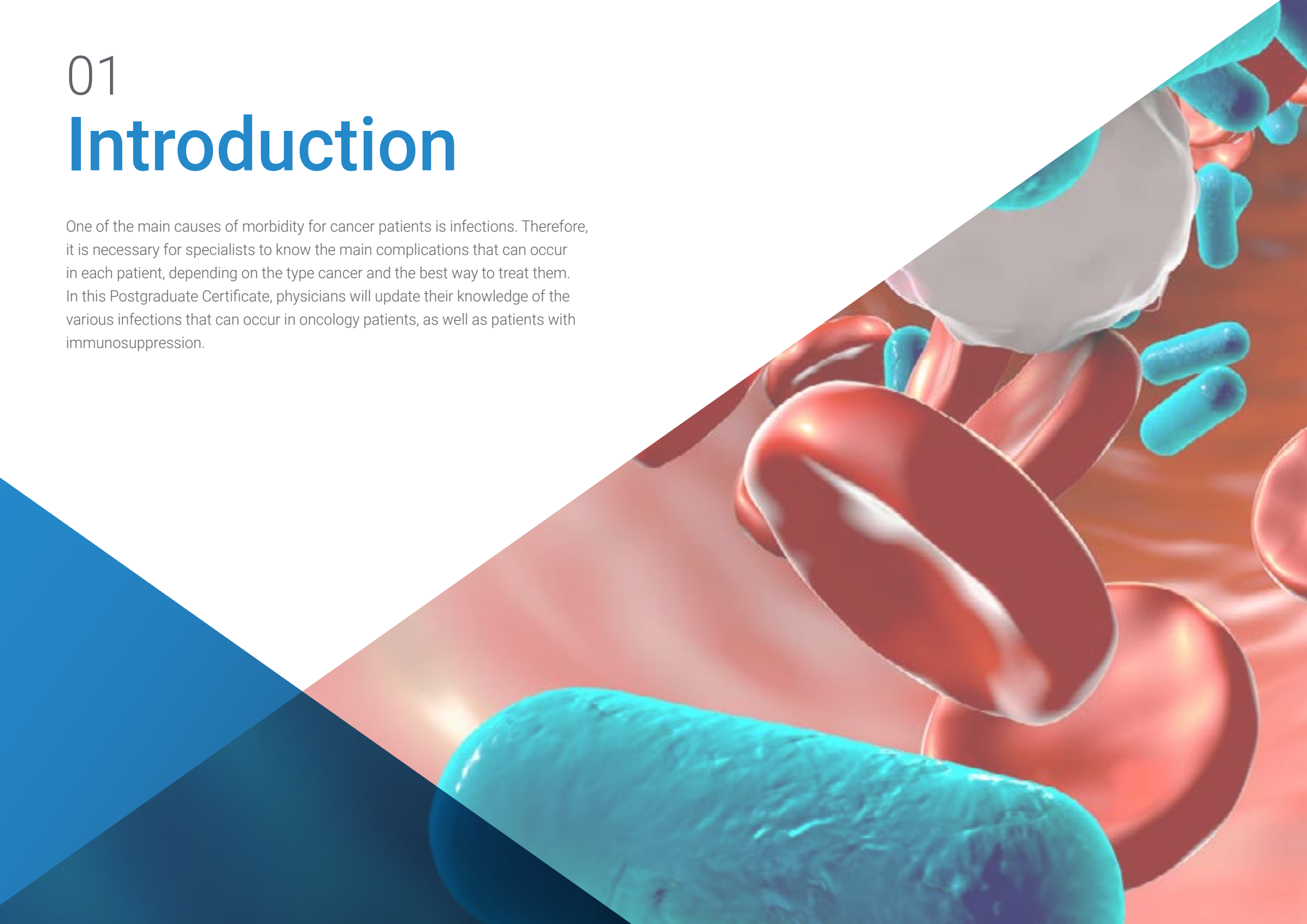
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01

# Introduction

One of the main causes of morbidity for cancer patients is infections. Therefore, it is necessary for specialists to know the main complications that can occur in each patient, depending on the type cancer and the best way to treat them. In this Postgraduate Certificate, physicians will update their knowledge of the various infections that can occur in oncology patients, as well as patients with immunosuppression.







*Improve your knowledge in Infections in the Oncological Process through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality medical practice.*

To meet the healthcare needs of the 21st century, medical professionals must keep up with advances in the patient care, especially cancer patients. In such cases, adding to their own disease, these patients have to be extremely careful with infections, given the high-level of morbidity.

Infection control has become a great difficulty, especially due to the problems derived from antimicrobial resistance, which has caused pathologies that used to be easily cured to become more complicated, with the consequences that this entails, both for patients and for the economy, as treatment costs have become prolonged. It should also be taken into account that, in the case of cancer patients, immunosuppression can make the immune system unable to fend off infections.

For this reason, physicians should continue their training with educational programs such as this one, which focuses on infections in the oncologic process, mainly taking into account the problems derived from the different types of oncologic patients with sepsis.

Likewise, physicians will be able to deepen their knowledge of the connection between cancer and the different microorganisms that cause infections, as well as those bacteria that have become allies of cancer patients.

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

- Firstly, Clinical features, in order to address the health-infectious disease process in a particular person through the study of the most prevalent and deadly infectious diseases and, secondly, in Epidemiologic features, to study the behavior of the same phenomenon in a particular population.
- Training and professional development in the indication, performance and interpretation of the main state-of-the-art diagnostic tests to complement clinical skills in the diagnostic process. Emphasizing the most up-to-date microbiological tests used to rapidly diagnose germs and study antimicrobial resistance.
- Training and professional development in the complex and determining pathophysiological relationships between immune response and infectious agents.
- Training and professional development in germs related to neoplasms and chronic non-communicable diseases.
- Training and professional development in the development and production of vaccines for the control of morbidity and mortality due to infectious diseases.
- Training and professional development in the important field of antimicrobial therapeutics, providing the best available information on the development and production of new antibiotics.



*Update your knowledge  
through the Postgraduate  
Certificate in Infections in the  
Oncological Process.*

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*This Postgraduate Certificate may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge of Infections in the Oncological Process, you will obtain a Postgraduate Certificate from TECH - Technological University.*

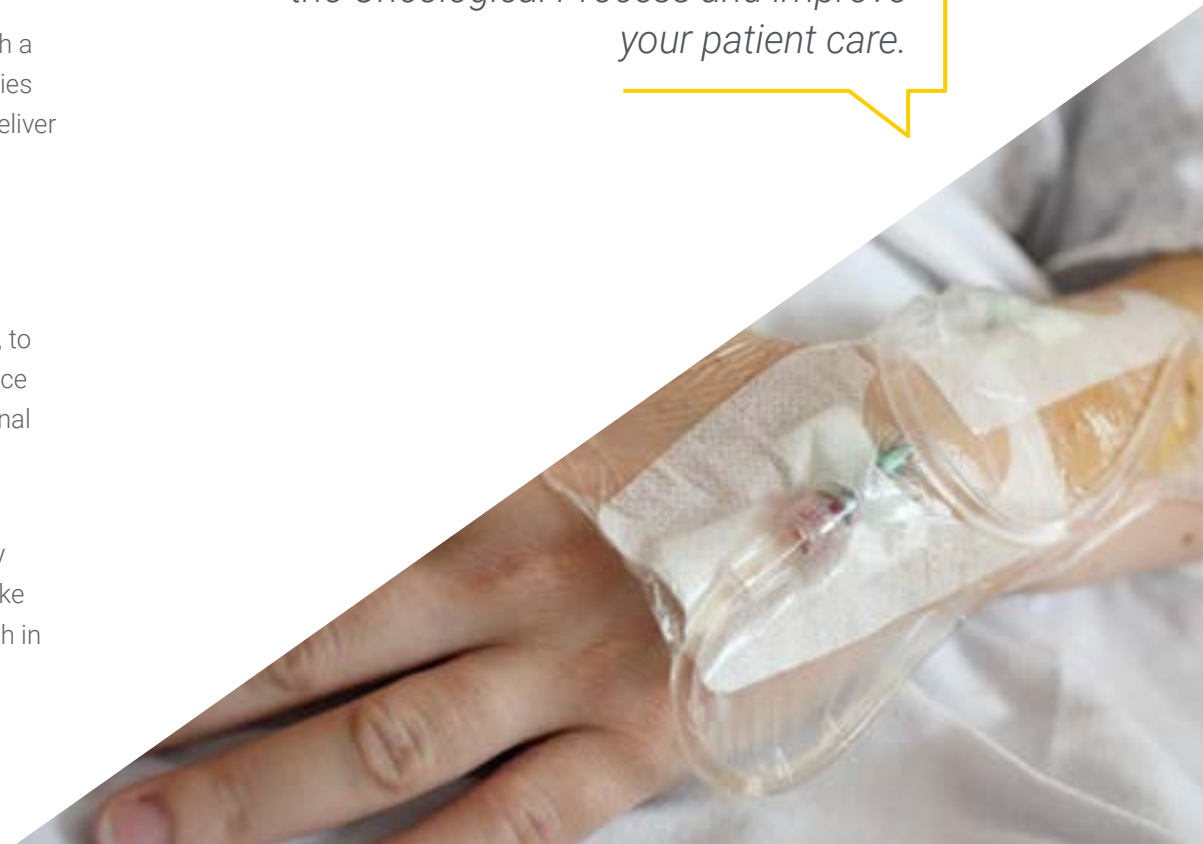
Its teaching staff is made up of prestigious and renowned Cuban professionals with a long career in health care, teaching and research, who have worked in many countries on several continents, developing professional and teaching experience that they deliver in an extraordinary way in this Postgraduate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

The methodological design of this Postgraduate Certificate, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous educational multimedia tools that allow the professional, based primarily on the problem-based learning method, to address real problems in their daily clinical practice, which will allow them to advance by acquiring knowledge and developing skills that will impact their future professional work.

It should be noted that the contents generated for this Postgraduate Certificate, as well as the videos, self-evaluations, clinical cases and exams, have been thoroughly reviewed, updated, and integrated by the teachers and the team of experts that make up the working group, to facilitate the learning process with a step-by-step approach in order to achieve the teaching program objectives.

*Increase your decision-making confidence by updating your knowledge through this Postgraduate Certificate.*

*Take the opportunity to learn about the latest advances in Infections in the Oncological Process and improve your patient care.*

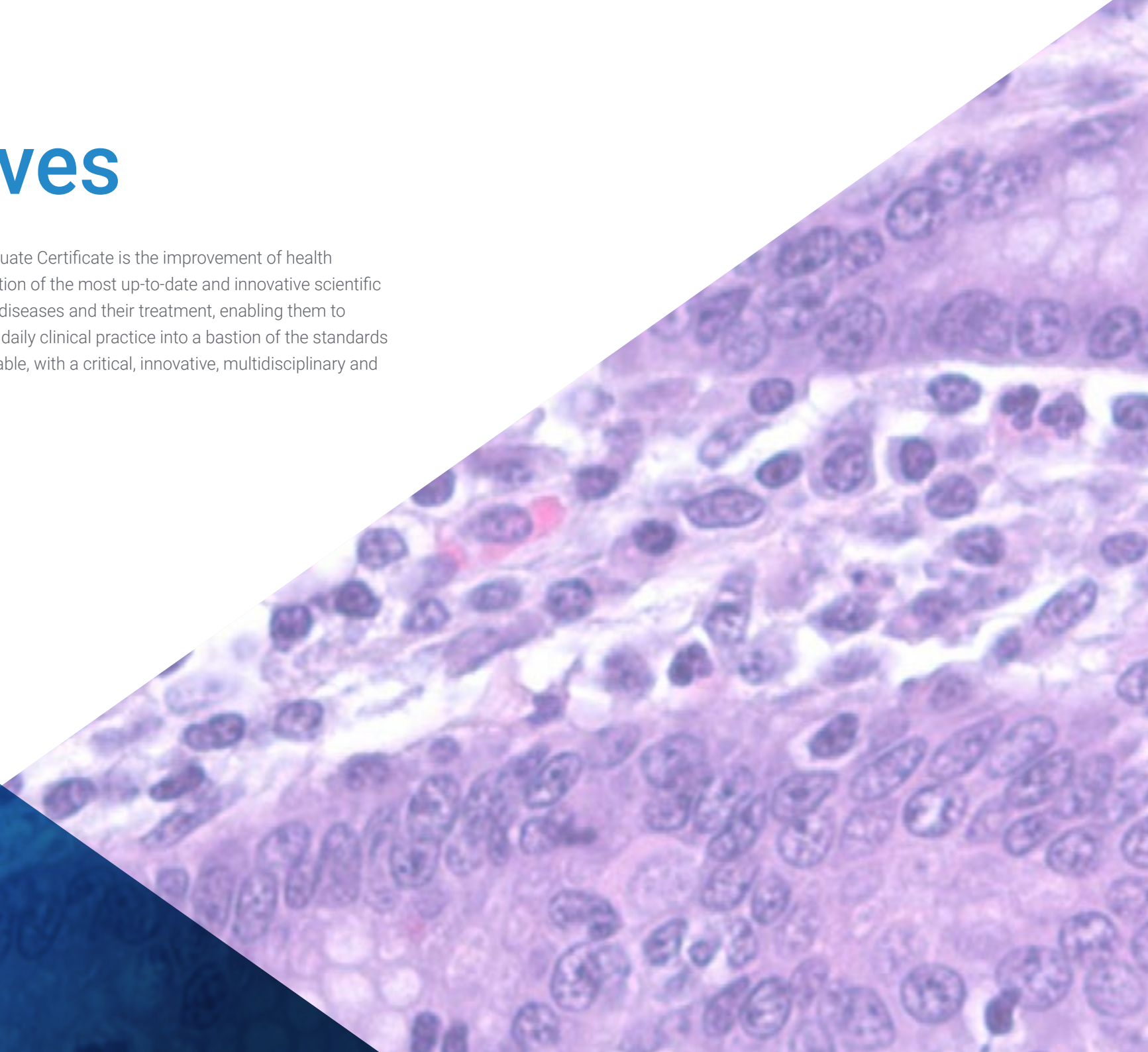




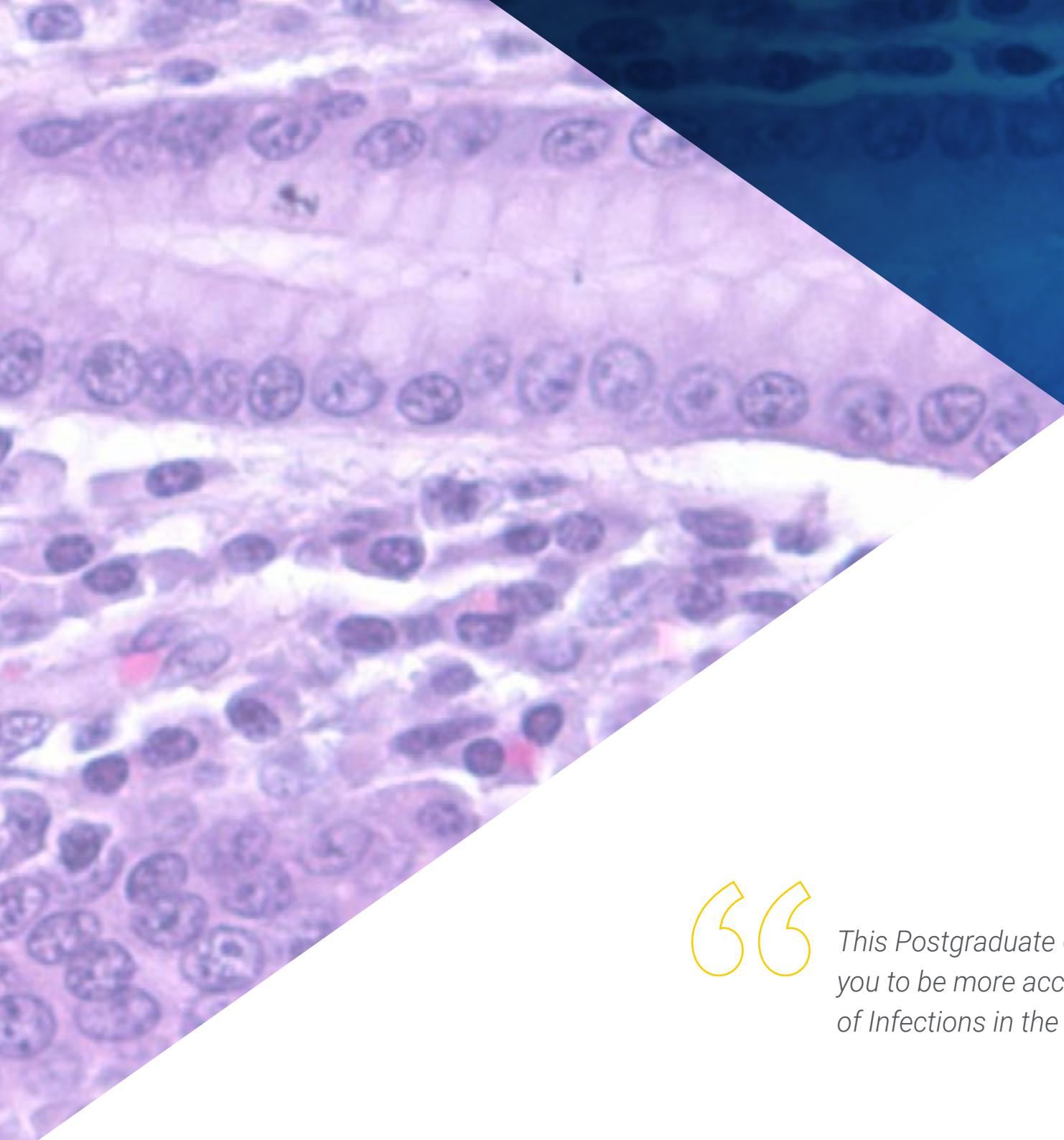
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# Objectives

The main objective of this Postgraduate Certificate is the improvement of health professionals, based on the acquisition of the most up-to-date and innovative scientific knowledge in the field of infectious diseases and their treatment, enabling them to develop the skills that will turn their daily clinical practice into a bastion of the standards of the best scientific evidence available, with a critical, innovative, multidisciplinary and integrative focus.







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*This Postgraduate Certificate will help you to be more accurate in the diagnosis of Infections in the Oncological Process.*



## General Objective

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- Guarantee professional improvement through up-to-date and in-depth knowledge of the best scientific evidence , for the prevention, diagnosis, and treatment of infectious diseases with a multidisciplinary and integrative approach that facilitates the control of these pathologies.





## Specific Objectives

- ◆ Provide students with advanced, in-depth, updated, and multidisciplinary information that allows them to comprehensively approach the process of health-infectious diseases.
- ◆ Provide training and practical theoretical improvement that will enable a reliable clinical diagnosis supported by the efficient use of diagnostic methods to indicate an effective integral treatment.
- ◆ Develop skills to implement prophylactic plans for the prevention of these pathologies.
- ◆ Assess and interpret the epidemiological characteristics and conditions of the different continents where the appearance and development of infectious diseases often occur.
- ◆ Explain the complex interrelationships between infections and different types of immunosuppression.

*Update your knowledge through the  
Postgraduate Certificate in Infections in  
the Oncological Process.*



03

# Structure and Content

The teaching program has been created to provide healthcare professionals with the necessary tools for daily practice in the treatment of infections. Thus, the content of this Postgraduate Certificate comprises the most updated syllabus on the market, which has been developed by leading experts in the field at the international level, with the aim of making specialists more accurate in the diagnosis and treatment of this type of infections.







*This Postgraduate Certificate in Infections in the Oncological Process contains the most complete and up-to-date scientific program on the market.*

## Module 1 Cancer and Immunosuppression

- 1.1. The Innate and Adaptive Immune Response
  - 1.1.1. Cells and Cytokines in Response to Infectious Agents
  - 1.1.2. Characteristics of the Innate Immune Response
- 1.2. Immunosuppression in Different Conditions in Patients with Sepsis
  - 1.2.1. The Role of Cytotoxics in Immunosuppression
  - 1.2.2. The Role of Cytotoxics in Immunosuppression
  - 1.2.3. Infection in Transplant Patients
- 1.3. The Oncohematological Patient with Sepsis
  - 1.3.1. Medullary Aplasia
  - 1.3.2. Neutropenia
  - 1.3.3. Infections in Patients with Cancer
- 1.4. The Diabetic Patient with Sepsis
  - 1.4.1. The Immune System in Diabetes Mellitus
  - 1.4.2. Main Infections in the Diabetic Patient
- 1.5. Comprehensive Approach to the Immuno-Compromised Patient with Sepsis
  - 1.5.1. Diagnostic Considerations
  - 1.5.2. Therapeutic Measures
- 1.6. The Link between Cancer and Micro-organisms
  - 1.6.1. Oncogenesis and Infection
  - 1.6.2. Viruses and Cancer Epstein Barr Virus Hepatitis B and C Human Papillomavirus T. Herpes cell Lymphoma/Leukemia Virus, Herpes, Kaposi's Sarcoma-associated Virus
- 1.7. Bacterias and Cancer
  - 1.7.1. Helicobacter Pylori
- 1.8. Parasites and Cancer
  - 1.8.1. Schistosoma Haematobium
  - 1.8.2. Opisthorchis Viverrini
- 1.9. Bacteria Allies against Cancer
  - 1.9.1. Bacteria Types





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*A unique, key, and decisive  
Training experience to boost your  
professional development.*



04

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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 Re-learning, 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 would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you can 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 potential 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 professional medical 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 grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on 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.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

*The physician 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians 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.

*Re-learning 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 (we learn, unlearn, forget, and re-learn). Hence, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



In this Postgraduate Certificate you will have access to the best educational material, prepared with you in mind:



### Study Material

After a complex production process, we transform the best content into high-quality educational and audiovisual multimedia. We select the best syllabus and make it available to you. Everything you need to acquire in-depth knowledge of a discipline, from A to Z. Lessons written and chosen by specialists in each of the disciplines.



### Surgical techniques and clinical procedures on video

We bring you closer to the newest techniques, to the latest scientific advances, and to the forefront of medical news. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



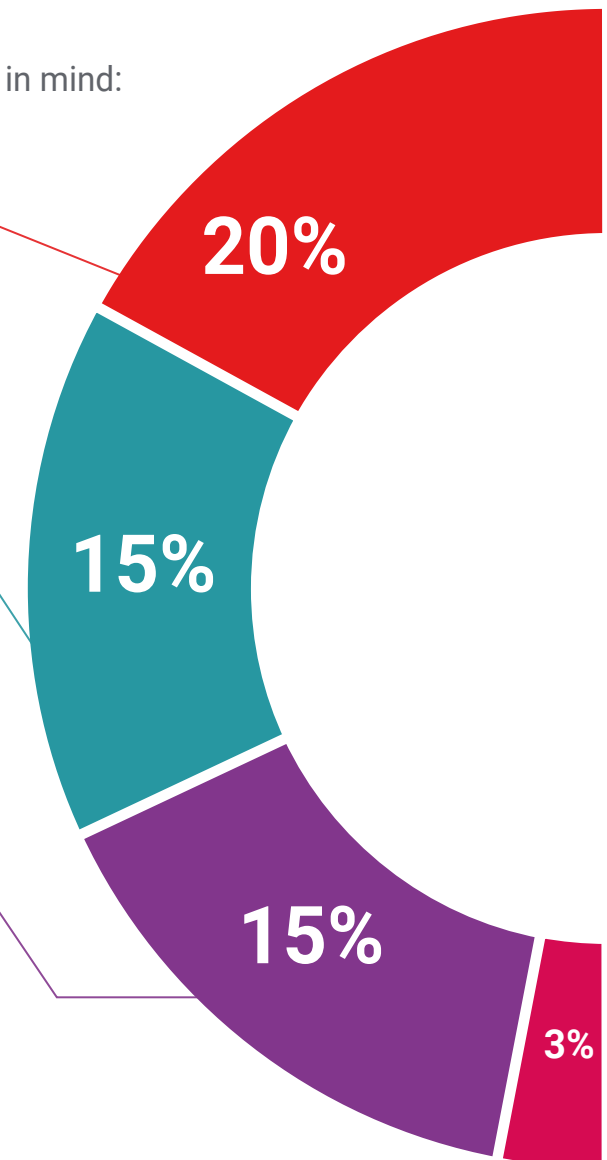
### Interactive Summaries

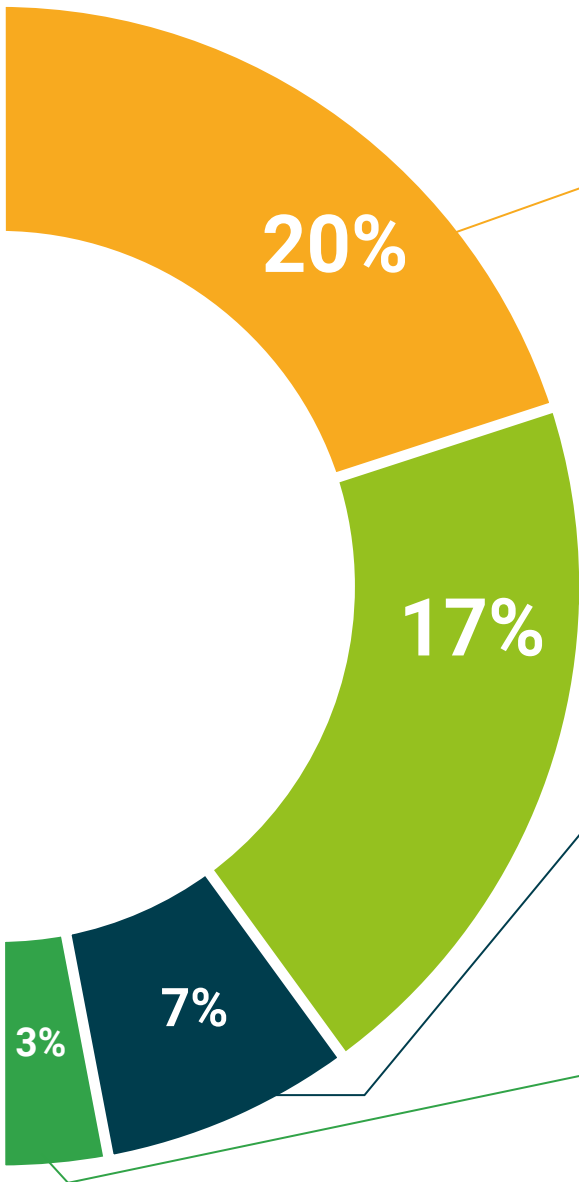
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This unique training system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents, international guides... in our virtual library you will have access to everything you need to complete your training.





#### Expert-Led Case Studies and Case Analysis

Through the narratives of expert professionals, it is possible to acquire a high degree of understanding of the most frequent problematic situations. The professional's healthcare practice is not alien to the context in which it takes place. If we want to train ourselves to improve our professional practice, this training must be situated within the context in which it takes place.



#### Testing & Re-testing

We periodically evaluate and re-evaluate your knowledge throughout this program through activities and evaluative exercises.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful. Learning from an expert strengthens knowledge and recall, and generates confidence in our future difficult decisions.



#### Quick Action Guides

One of the most important functions of our team is to select those contents considered essential and present them in the form of worksheets or quick action guides to facilitate their understanding.



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# Certificate

The Postgraduate Certificate in Infections in the Oncological Process guarantees, 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 training and receive your university degree without travel or laborious paperwork.*

This **Postgraduate Certificate in Infections in the Oncological Process** contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive by mail with acknowledgment of receipt their corresponding Postgraduate Certificate issued TECH - Technological University.

The certificate issued by TECH - Technological University will express the qualification obtained in the course, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Diploma: **Postgraduate Certificate in Infections in the Oncological Process**

ECTS: **4**

Official Number of Hours: **100**



\*Apostille Convention. In the event that the student wishes to have their paper diploma 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  
personalized service innovation  
knowledge present quality  
development languages  
virtual classroom



**Postgraduate Certificate**  
Infections in the  
Oncological Process

Course Modality: Online

Duration: 6 weeks

Certificate: TECH - Technological University

4 ECTS Credits

Teaching Hours: 100 hours.

# Postgraduate Certificate

## Infections in the Oncological Process