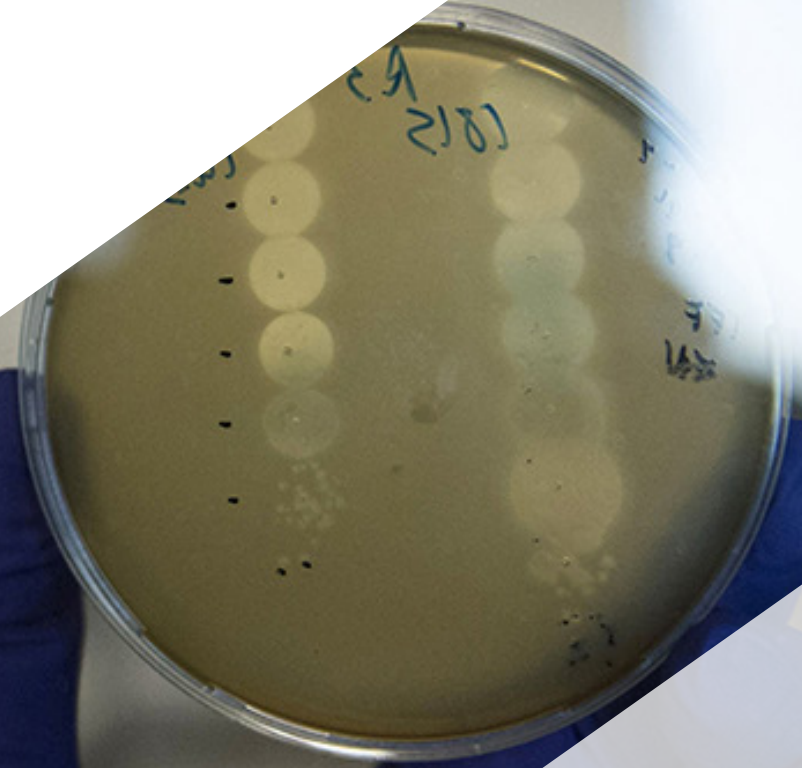


Postgraduate Certificate

Antibiotic Resistance in
Streptococcus, Enterococcus
and Staphylococcus for Nursing





Postgraduate Certificate Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing

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

Website: www.techtute.com/us/nursing/postgraduate-certificate/antibiotic-resistance-streptococcus-enterococcus-staphylococcus-nursing

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01

Introduction

Antibiotic resistance in Gram-Positive Bacteria such as Streptococcus, Enterococcus and Staphylococcus represents a significant challenge in contemporary healthcare. This phenomenon not only compromises the effectiveness of treatments, but also increases the morbidity and mortality associated with infections caused by these bacteria. Faced with this reality, nursing personnel play a crucial role in early identification, effective treatment and patient education. Therefore, these professionals must update their knowledge frequently to ensure effective interventions and provide high quality care. In this context, TECH presents an innovative program focused on the most relevant resistance mechanisms in these pathogens. Moreover, it is based on a convenient 100% online format.



“

With this 100% online Postgraduate Certificate, you will manage the most sophisticated strategies for the prevention and control of infections caused by resistant strains”

With the rise of antibiotic resistance in Streptococcus, Enterococcus and Staphylococcus nurses face an increasingly complex clinical landscape. The ability of these bacteria to develop multidrug-resistance presents significant challenges in the care and management of nosocomial and community infections. Faced with this situation, professionals have a responsibility to stay at the forefront of the most innovative strategies to improve the detection, treatment and control of these infections. Only in this way will they be able to provide excellent quality care and contribute to optimizing the well-being of patients.

In this scenario, TECH launches a pioneering Postgraduate Certificate in Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing. Designed by specialists in this field, the academic itinerary will delve into the natural habitat of Gram-positive pathogens. Therefore, graduates will be able to identify the risks of transmission in clinical care settings. Likewise, the syllabus will delve into the various treatment options for pathologies such as Streptococcus pneumoniae, Enterococcus faecium or Staphylococcus aureus. Throughout the program, professionals will gain skills to educate communities about antibiotic resistance in bacteria, promoting the responsible use of antibiotics and preventive measures.

On the other hand, this university program is based on the cutting-edge Relearning methodology, of which TECH is a pioneer. This learning method focuses on the repetition of the essential concepts to achieve the best results. For this, all nurses will need is an electronic device connected to the Internet (such as a cell phone, tablet or computer) to access the materials at any time, therefore eliminating the obligation of being physically present or adjusting to uncomfortable pre-established schedules. In this way, professionals will be able to combine their studies with the rest of their regular responsibilities.

This **Postgraduate Certificate in Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Microbiology, Medicine and Parasitology
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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



Are you looking for a university program that is compatible with your daily responsibilities? This is the right program for you, TECH adapts to you"

“

Looking to develop skills to educate your patients about antibiotic resistance in Gram-Positive Bacteria? Achieve it through this program”

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will learn about the different treatment options to combat Streptococcus pneumoniae and optimize the quality of life of users.

TECH's Relearning methodology will facilitate the assimilation of complex concepts in a fast and flexible way.



02

Objectives

After completing this Postgraduate Certificate, the nursing staff will have a detailed understanding of the mechanisms of antibiotic resistance in Streptococcus, Enterococcus and Staphylococcus, as well as the clinical implications of this resistance. Likewise, graduates will incorporate into their practice the most innovative strategies for the management and treatment of these infections, including specific therapeutic options or patient monitoring. In addition, experts will be able to manage infection prevention protocols in health care settings, therefore reducing the spread of antibiotic resistance.





“

You will be able to accurately identify resistant strains of bacteria using laboratory and clinical diagnostic techniques”



General Objectives

- ♦ Examine the main infections by Gram Positive Bacteria, including their natural habitat, Nosocomial Infections and community-acquired infections
- ♦ Determine the clinical significance, resistance mechanisms and treatment options for different Gram-positive Bacteria





Specific Objectives

- Explore the implications of antibiotic resistance of the major Gram Positive Bacteria on Public Health and clinical practice
- Discuss strategies to mitigate antibiotic resistance in Gram Positive Bacteria

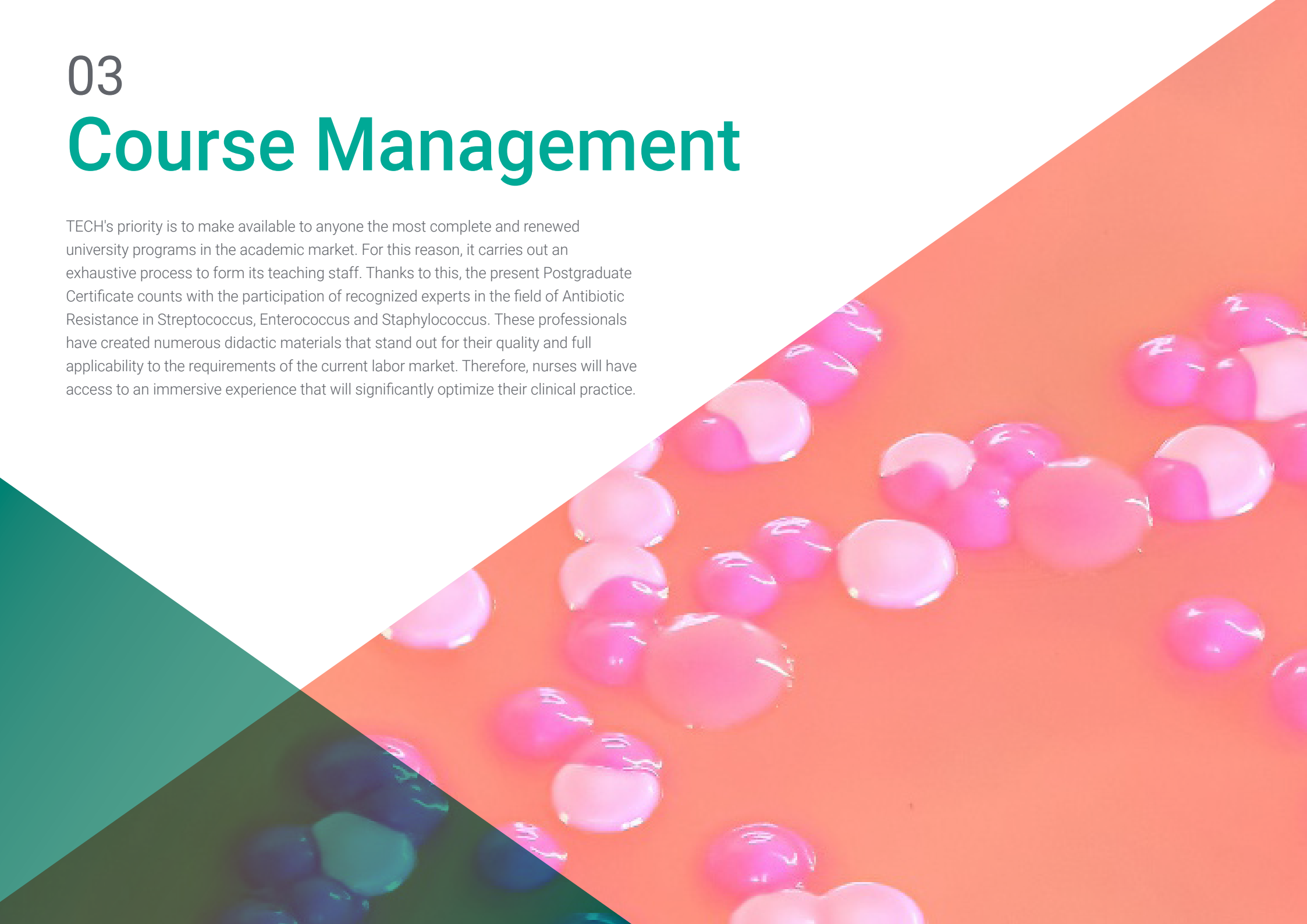


You will update your knowledge through didactic materials in formats such as video or interactive summaries, which will completely enliven your academic experience”

03

Course Management

TECH's priority is to make available to anyone the most complete and renewed university programs in the academic market. For this reason, it carries out an exhaustive process to form its teaching staff. Thanks to this, the present Postgraduate Certificate counts with the participation of recognized experts in the field of Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus. These professionals have created numerous didactic materials that stand out for their quality and full applicability to the requirements of the current labor market. Therefore, nurses will have access to an immersive experience that will significantly optimize their clinical practice.



“

The teaching team of this Postgraduate Certificate is made up of experts specialized in Antibiotic Resistance, to offer you the most professionally applicable knowledge in this area”

Management



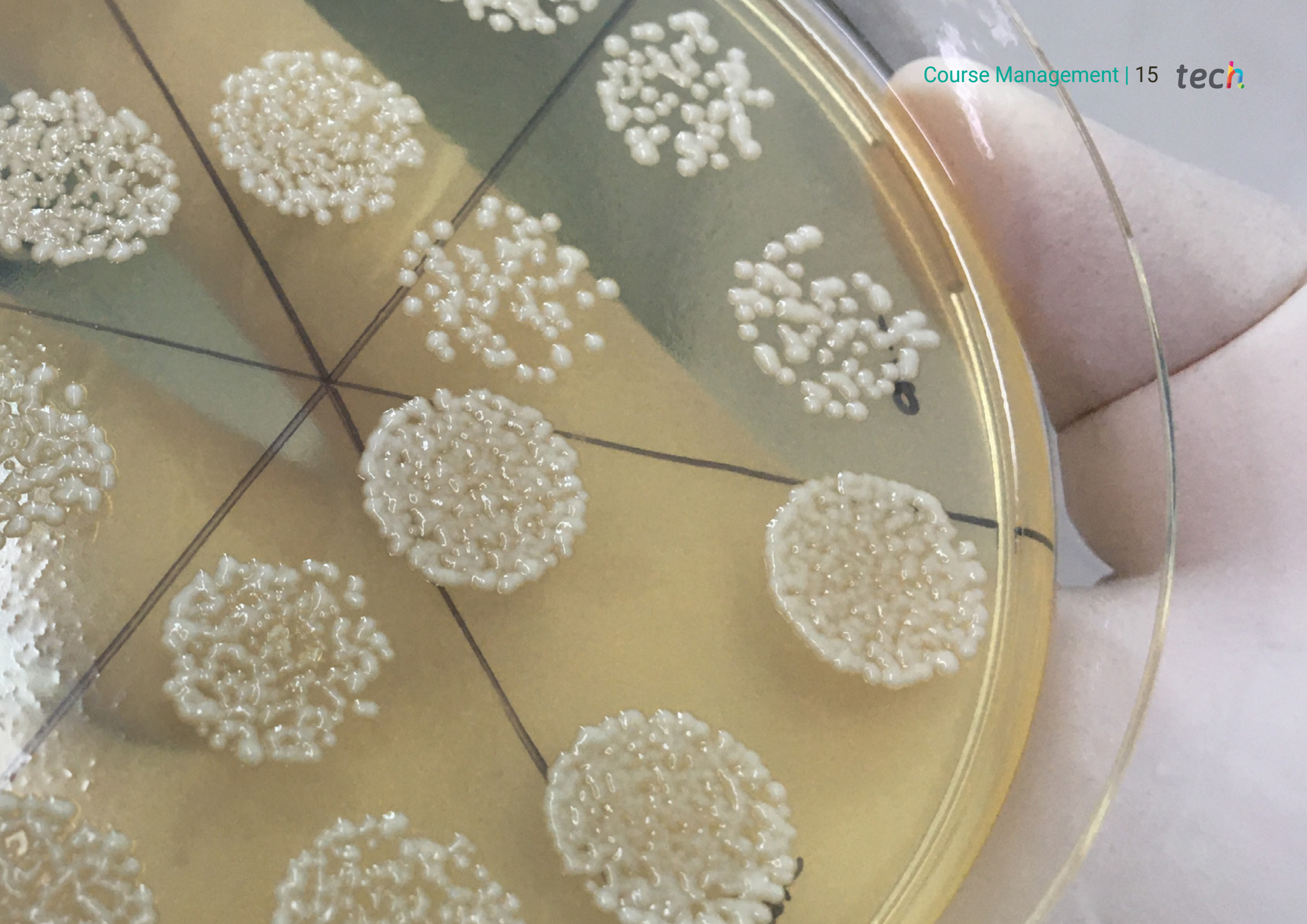
Dr. Ramos Vivas, José

- ♦ Director of the Banco Santander-Universidad Europea del Atlántico Chair in Innovation
- ♦ Researcher at the Center for Innovation and Technology of Cantabria (CITICAN)
- ♦ Academic of Microbiology and Parasitology at the European University of the Atlantic
- ♦ Founder and former director of the Cellular Microbiology Laboratory of the Valdecilla Research Institute (IDIVAL)
- ♦ PhD in Biology from the University of León
- ♦ Doctor in Sciences from the University of Las Palmas de Gran Canaria
- ♦ Degree in Biology from the University of Santiago de Compostela
- ♦ Master's Degree in Molecular Biology and Biomedicine from the University of Cantabria
- ♦ Member of: CIBERINFEC (MICINN-ISCI), Member of the Spanish Society of Microbiology and Member of the Spanish Network of Research in Infectious Pathology

Professors

Dr. Domenech Lucas, Mirian

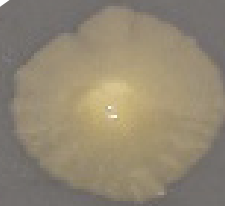
- ♦ Researcher at the Spanish Reference Laboratory for Pneumococci, National Centre of Microbiology
- ♦ Researcher in International Groups led from College London, UK and Radboud University in the Netherlands
- ♦ Academician of the Department of Genetics, Physiology and Microbiology of UCM
- ♦ PhD in Biology from the Complutense University of Madrid
- ♦ Degree in Biology, specializing in Biotechnology from UCM
- ♦ Diploma of Advanced Studies, UCM



04

Structure and Content

Through this Postgraduate Certificate, nurses will have a comprehensive understanding of the specific antibiotic resistance mechanisms in Streptococcus, Enterococcus and Staphylococcus. The syllabus will analyze the causes of infections caused by Gram-Positive bacteria, which will allow professionals to identify symptoms that could indicate a bacterial infection. Likewise, the syllabus will delve into Mycobacterium Tuberculosis and offer the different treatment options. Along these lines, during the course of the program graduates will acquire advanced skills for the management of infections caused by resistant strains, including patient monitoring.



““

You will acquire competencies in the clinical management of patients affected by infections caused by Streptococcus, Enterococcus and Staphylococcus resistant to antibiotics”

Module 1. Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus

- 1.1. Infections Due to Gram-Positive Bacteria
 - 1.1.1. Natural Habitat of Gram-Positive Pathogens
 - 1.1.2. Nosocomial Infections due to Gram-Positive Bacteria
 - 1.1.3. Community-Acquired Infections by Gram-Positive Bacteria
- 1.2. In Vitro and in Vivo Systems for the Study of Resistance in Gram-Positive Bacteria
 - 1.2.1. Biofilms
 - 1.2.2. Cellular Models
 - 1.2.3. Animal Models
- 1.3. Streptococcus Pneumoniae
 - 1.3.1. Clinical Significance
 - 1.3.2. Resistance Mechanisms
 - 1.3.3. Biofilms
 - 1.3.4. Treatment Options
- 1.4. Streptococcus Pyogenes
 - 1.4.1. Clinical Significance
 - 1.4.2. Resistance Mechanisms
 - 1.4.3. Biofilms
 - 1.4.4. Treatment Options
- 1.5. Streptococcus Agalactiae
 - 1.5.1. Clinical Significance
 - 1.5.2. Resistance Mechanisms
 - 1.5.3. Biofilms
 - 1.5.4. Treatment Options
- 1.6. Enterococcus Faecalis
 - 1.6.1. Clinical Significance
 - 1.6.2. Resistance Mechanisms
 - 1.6.3. Biofilms
 - 1.6.4. Treatment Options



- 1.7. Enterococcus Faecium
 - 1.7.1. Clinical Significance
 - 1.7.2. Resistance Mechanisms
 - 1.7.3. Biofilms
 - 1.7.4. Treatment Options
- 1.8. Staphylococcus Aureus
 - 1.8.1. Clinical Significance
 - 1.8.2. Resistance Mechanisms
 - 1.8.3. Biofilms
 - 1.8.4. Treatment Options
- 1.9. Mycobacterium Tuberculosis
 - 1.9.1. Clinical Significance
 - 1.9.2. Resistance Mechanisms
 - 1.9.3. Treatment Options
- 1.10. Resistance in Other Gram-Positive Bacteria
 - 1.10.1. Coagulase-Negative Staphylococcus
 - 1.10.2. Clostridioides Difficile
 - 1.10.3. Emerging Gram Positive Pathogens

“

The emphasis on real clinical and practical cases that you will be able to study will help you enormously in the contextualization of the whole program. Enroll now!"

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.



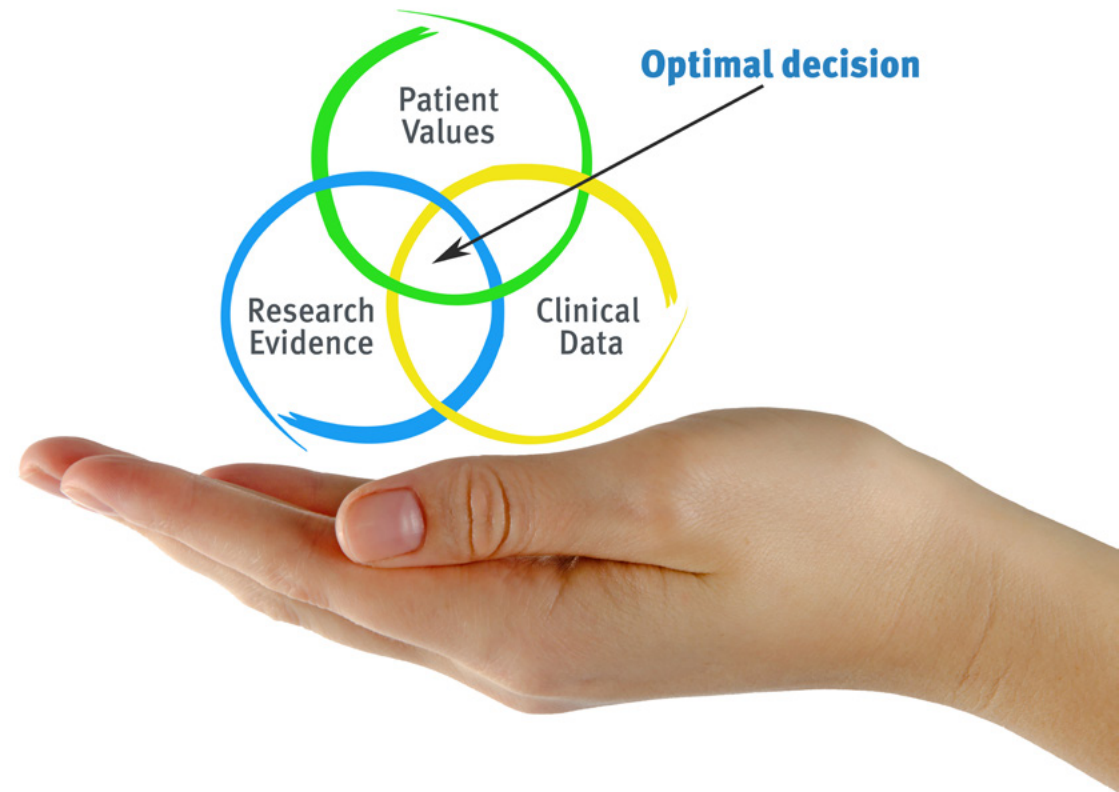
“

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 Nursing School 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing practice.

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



The nurse 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 we have trained more than 175,000 nurses with unprecedented success in all specialties regardless of practical workload. 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.

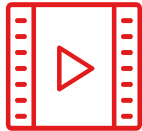
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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 really specific and precise.

These contents are then adapted in 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.



Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, 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 them as many times as you want.



Interactive Summaries

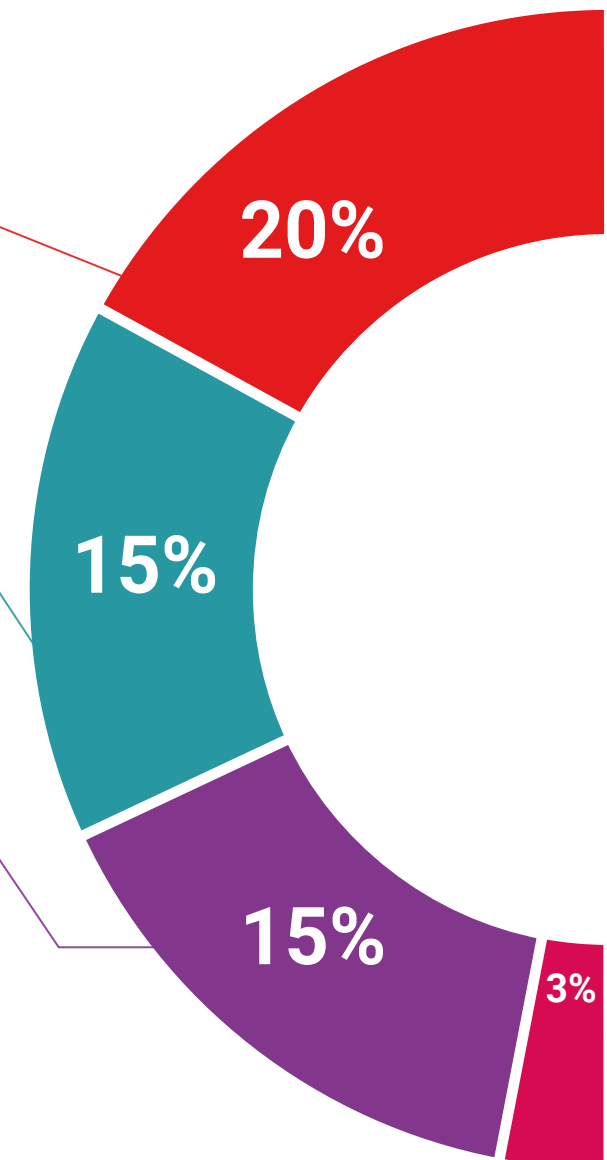
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

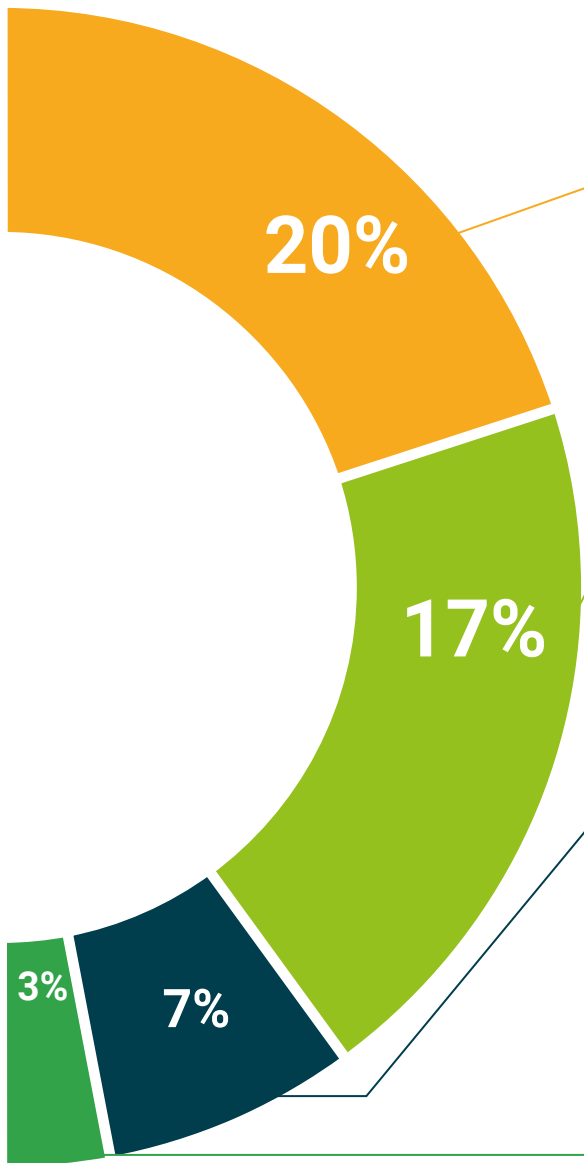
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of 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.



06

Certificate

The Postgraduate Certificate in Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing guarantees, in addition to the most accurate and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This private qualification will allow you to obtain a **Postgraduate Certificate in Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing** for Nursing endorsed by **TECH Global University**, the world's largest online university.

TECH Global University, is an official European University publicly recognized by the Government of Andorra (**official bulletin**). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University private qualification**, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Antibiotic Resistance in Streptococcus, Enterococcus and Staphylococcus for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.



Postgraduate Certificate
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Postgraduate Certificate

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