

Postgraduate Certificate

Specialist in Enological
Microbiology





Postgraduate Certificate Specialist in Enological Microbiology

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

Website: www.techtute.com/us/nutrition/postgraduate-certificate/specialist-enological-microbiology

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01

Introduction

Winemaking is a difficult process, since there are many determining factors in it. One of them is the proliferation of bacteria and other microorganisms in the wine from the cultivation of its fruit. In this line, it is necessary for companies to incorporate growth tools that meet the key nutritional requirements for the viability of the final product. Therefore, it is essential that organizations have nutritionists who analyze these parameters and are updated to incorporate new study techniques and alternatives that lead to the improvement of the wine in question and, therefore, to the maximization of business profits. With these skills in mind, TECH has developed a rigorous program on the microbial ecology involved in winemaking. This program is offered in a 100% online format, so that specialists can combine their studies with other activities.





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With this Postgraduate Certificate, you will thoroughly investigate the study of enological microbiology in only 6 weeks of academic qualification”

Lactic acid bacteria are vital to reduce, among other problems, the biological acidity of wine. These microorganisms increase the pH, as well as affecting the aroma and color of each type of wine. They are therefore essential in winemaking. However, their control must be demanding in order to comply with the appropriate parameters and obtain the desired result. Nutrition, chemistry and technology work in coordination in this aspect for the production of a food that tends to be more elaborate than it seems at first sight.

On the contrary, some chemical additives cause biogenic amines and the transmission of adverse tastes in the wine. This could cause health complications for consumers, if the product were to be marketed. In order to take care of the grape components and respect the malic acid levels in the food, TECH has developed a specific and rigorous titration around enological microbiology. This program is aimed at nutrition graduates and other professionals interested in the biological components of wine, and is designed to provide them with theoretical and practical training to increase their skills in this field.

In addition, TECH has incorporated in this qualification effective pedagogical tools to facilitate the assimilation of technical concepts by the specialist, without having to invest long hours of memorization common in other orthodox programs. This is possible thanks to the *Relearning* methodology and the 100% online modality offered by TECH. In addition, students will have a direct communication channel through which they will be able to solve all their questions about the subject with the support of an experienced teaching group in Enology. A unique experience for those who opt for modern and digital teaching, without neglecting rigorousness.

This **Postgraduate Certificate in Specialist in Enological Microbiology** 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 nutrition, gastronomy and chemistry
- The graphic, schematic and eminently practical contents with which it is conceived provide Scientific information on those 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



Sign up now to master common genera in wine, such as fungi and beneficial microorganisms”

“

Microbiological stability is key in the development of a high quality wine end product. Get educated with TECH in this area with an easy-to-follow program"

The program's teaching staff includes professionals from the 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 professionals 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 professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.

Offer a wine that causes greater consumer satisfaction, thanks to the knowledge provided by TECH about its nutritional requirements.

Thanks to TECH, you will learn more about the importance of malolactic fermentation in the face of the consequences of climate change.



02 Objectives

The main objective of this Postgraduate Certificate in Enological Microbiology Specialist is to broaden and update the theoretical and technical knowledge of Nutrition graduates and other professionals interested in the wine sector. TECH manages to effectively instruct students, thanks to the incorporation of dynamic pedagogical tools and the support of a teaching team that will be available to guide the professional in their studies. This is a key opportunity for those specialists who opt for an online program and wish to combine their studies with the rest of their lives.



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Project your professional performance towards more ecological methods and discover the benefits of microbicidal substances in the growth of microorganisms”



General Objectives

- ♦ Provide the widest possible range of viticultural knowledge
- ♦ Show the student the importance of viticulture for the production of great wines
- ♦ Inculcate the need for environmental protection based on sustainability
- ♦ Substantiate the enological importance of these compounds both in the winemaking stages and in the final product
- ♦ Examine the microorganisms associated with the winemaking process, their nutritional requirements, and the beneficial or detrimental properties they can contribute to the wine
- ♦ Provide knowledge for the production of white wines
- ♦ Determine the wide range of existing possibilities in order to choose the most appropriate processes for a given terroir, grape variety and wine style
- ♦ Develop to the maximum the most advanced enology so that the student can produce top quality white wines
- ♦ Turn the student into an expert in red winemaking
- ♦ Determine the varieties used or with potential in the vinification of sparkling wines
- ♦ Examine the viticultural elements that affect winemaking
- ♦ Generate specialized knowledge about the expedition Preparation of wines for consumption
- ♦ Establish the importance of winemaking for this group of great wines
- ♦ Substantiate the need to protect these heritage treasures as part of our culture
- ♦ Broaden knowledge of fining and elimination of the various components that can depreciate the wine
- ♦ Broaden the knowledge of barrel construction
- ♦ Present the importance of barrel toasting
- ♦ Delve into the sensory analysis of wine Aspects to evaluate and how to carry it out
- ♦ Identify the organoleptic alterations of the wine





Specific Objectives

- ♦ Acquire a global knowledge of enological microbiology
- ♦ Analyze wine defects and correctly attribute them to each microbial group
- ♦ Fundamentally understand the concept of microbiological stability and be aware of the problems associated with different types of wine and the deviations they can have depending on the time of winemaking
- ♦ Examine the mechanism of action of antimicrobial compounds and how to control spoilage microorganisms
- ♦ Develop good cellar practices for cleaning and disinfection
- ♦ Establish methods for counting microorganisms and microscopic identification of each microbial group



Enroll now in this Postgraduate Certificate to broaden your skills in yeast genera in the winemaking process"

03

Course Management

TECH has carefully selected an expert teaching team in Microbiology and Enology to teach the knowledge of this program. This is a professional group that combines teaching with their professional development and, therefore, will be able to instruct students on the nutritional factors derived from microbacteria in grapevines, through their own experience. In this way, the students will have a direct communication channel through which they will be able to solve all their questions about the subject and discuss with the experts.



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Do not wait any longer, learn with the support of experienced teachers in the wine area and get all the knowledge that will make you be at the height of the current market"

Management



Ms. Clavero Arranz, Ana

- ♦ General Manager of Bodegas Cepa 21
- ♦ Chief Executive Officer of Grupo Bodegas Emilio Moro
- ♦ Chief Financial Officer of Grupo Bodegas Emilio Moro
- ♦ Head of Administration at Bodegas Cepa 21
- ♦ Administration Technician at Bodegas Convento San Francisco
- ♦ Professional Master's Degree in Business Administration and Management from the University of Valladolid
- ♦ Professional Master's Degree in Financial Management from ESIC
- ♦ Executive Coach by ICF
- ♦ Digital Immersion Program for CEOs (ICEX)
- ♦ Executive Development Program by IESE



Professors

Ms. Arranz Núñez, Beatriz

- ♦ Winemaker in Viñas del Jaro
- ♦ Assistant Winemaker at Viña Buena
- ♦ Winemaker at Familia A. De La Cal Winery
- ♦ Attendees Winemaker at Viña Cancura
- ♦ Winery worker at Vitalpe
- ♦ Winemaker trainer at the Business Development Institute
- ♦ Winemaker and guide at the Valladolid Provincial Wine Museum
- ♦ Overseer of the Superior Council of the Ribera del Duero D.O
- ♦ Degree in Enology from the University of Valladolid

Mr. Carracedo Esguevillas, Daniel

- ♦ Deputy winemaker at Viñas del Jaro
- ♦ Laboratory Manager at Viñas del Jaro
- ♦ Assistant Winemaker at Bodegas y Viñedos de Cal Grau
- ♦ Graduates in Enology from the University of Valladolid

“ *A unique, key, and decisive educational experience to boost your professional development*”

04

Structure and Content

The syllabus of this Postgraduate Certificate in Specialist in Enological Microbiology has been developed in detail by experts in the biological area. Thanks to their contribution and the incorporation of theoretical and practical tools, the student will be able to complete the degree with all the guarantees of success, by acquiring all the knowledge in a simple way. It is a program aimed at expanding the knowledge of professionals about the growth factors of microorganisms that affect the final result of the winemaking process. In addition, the *Relearning* methodology applied by TECH will exempt students from long hours of memorization and will facilitate the assimilation of the contents.



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TECH's objective is for you to meet yours. It explores the most sustainable and effective agricultural trends in recent years so that you can master this field to perfection"

Module 1. Enological Microbiology

- 1.1. Yeast
- 1.2. Lactic Acid Bacteria
- 1.3. Acetic Acid Bacteria
- 1.4. Fungi and Other Microorganisms
- 1.5. Microbial Ecology During Winemaking
- 1.6. Importance of Malolactic Fermentation (MLF)
- 1.7. Wine Alterations
- 1.8. Control of the Growth of Microorganisms
- 1.9. Biological Cleaning and Disinfection in the Winery
- 1.10. Microbiological Analysis of Wine



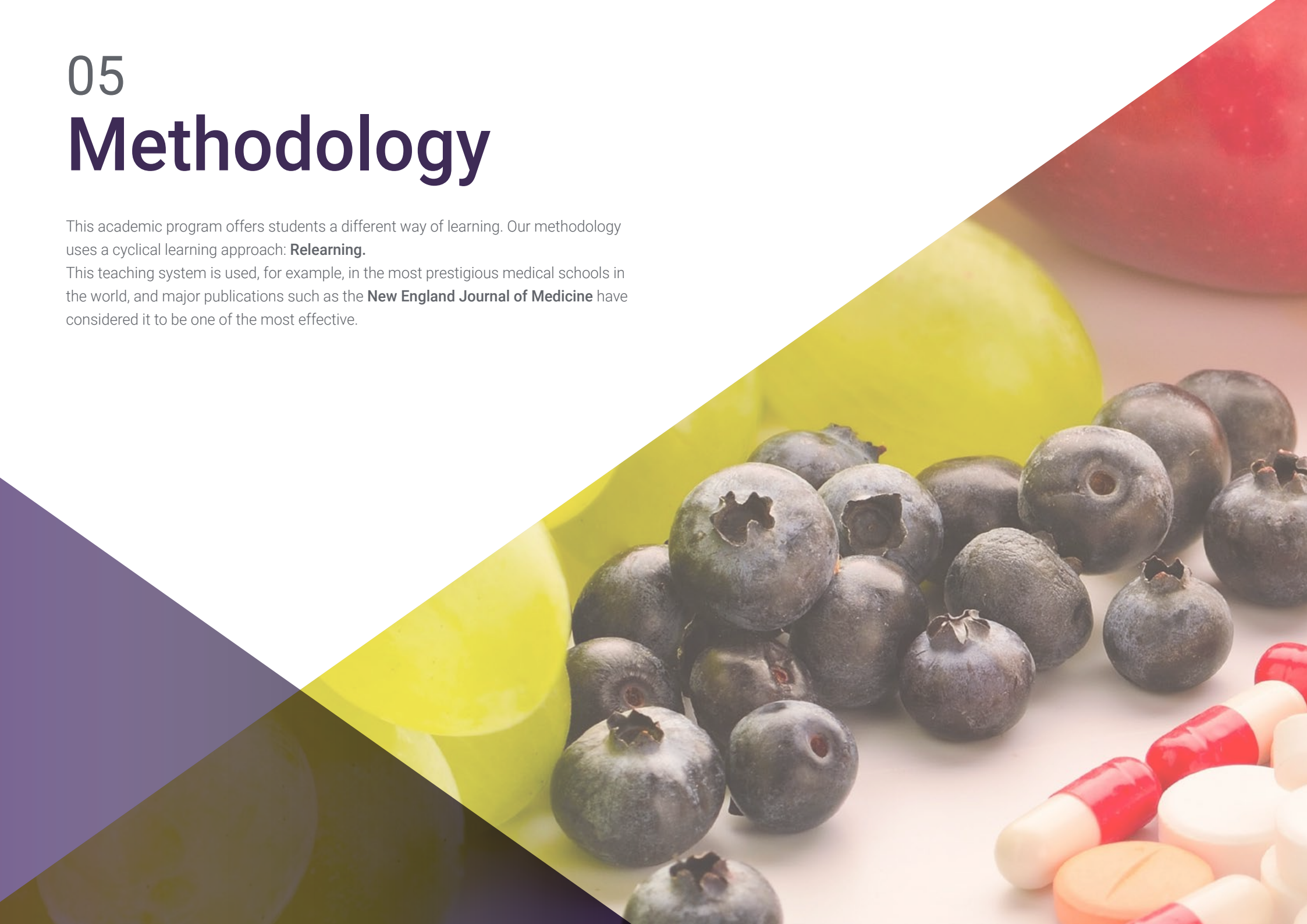


“ *A program designed for specialists like you, who want to get into specific winemaking from a microbiological point of view*”

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

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. 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 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.



06 Certificate

The Postgraduate Certificate in Specialist in Enological Microbiology 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 Specialist in Enological Microbiology** contains the most complete and up-to-date scientific 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 diploma 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 Specialist in Enological Microbiology**

Official N° of Hours: **150 h.**



*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.



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