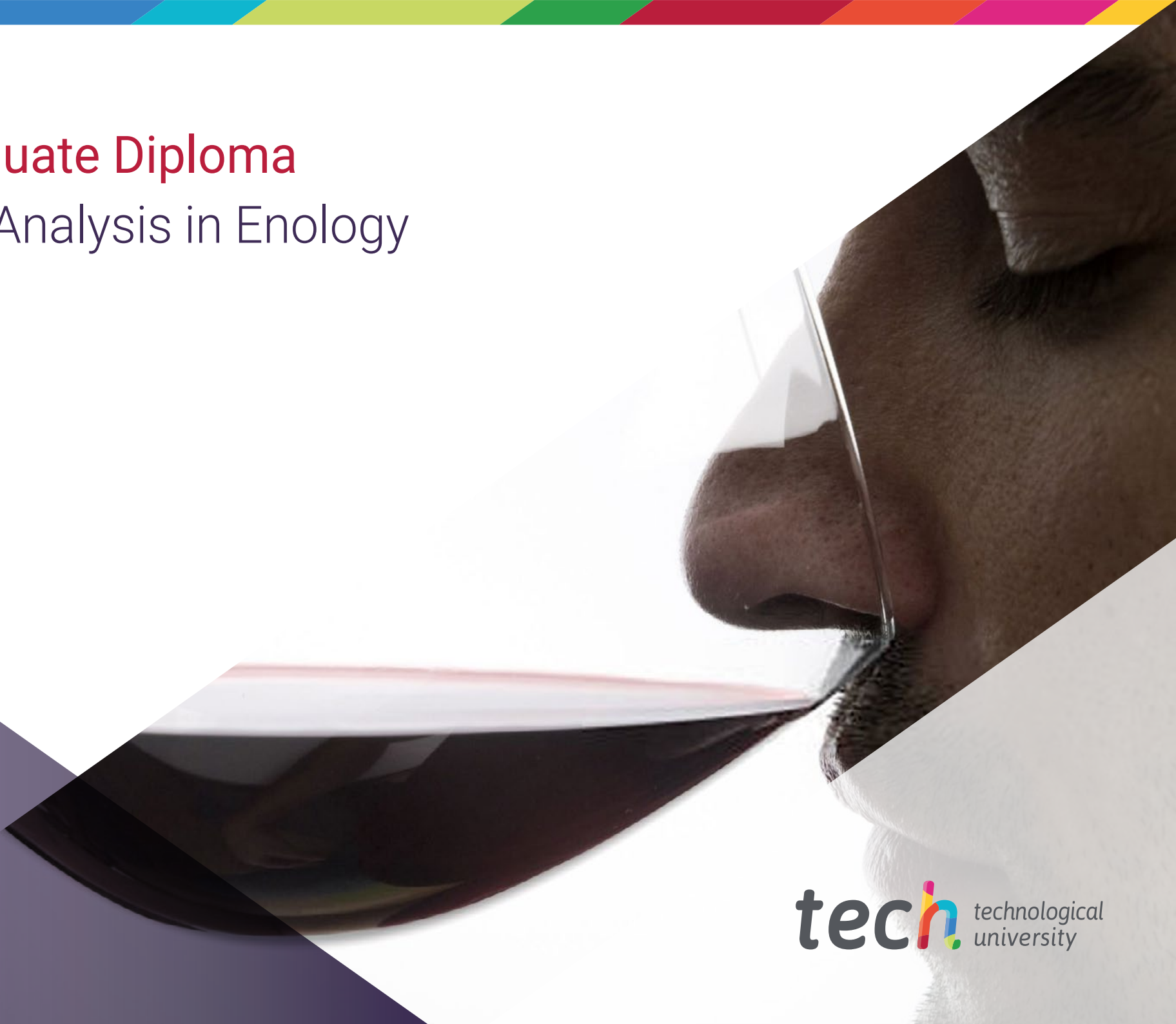


# Postgraduate Diploma

## Sensory Analysis in Enology





## Postgraduate Diploma Sensory Analysis in Enology

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

Website: [www.techtute.com/us/nutrition/postgraduate-diploma/postgraduate-diploma-sensory-analysis-enology](http://www.techtute.com/us/nutrition/postgraduate-diploma/postgraduate-diploma-sensory-analysis-enology)

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# 01

# Introduction

The wine industry offers a multitude of essences that are clearly distinguishable by wine lovers. This is the responsibility of the professionals who are dedicated to this area and who are in charge of analyzing the aromatic compounds transferred to the wine from the oak barrels. This element is essential in winemaking to aromatize the product, as are phenolic aldehydes, furanic compounds, lactones and volatile phenols. Therefore, the final quality of a bottle will depend on the work of nutrition specialists. Ensuring the presence of nutrients and the respect of production in both traditional and new methods is one of the objectives of the companies when relying on these experts. For this reason, TECH has designed a rigorous qualification in Sensory Analysis in Enology, which aims to expand their knowledge through a 100% online mode.







“

*With this Postgraduate Diploma you will master the microbiological instabilities in wine and know how to identify them with practical examples in only 6 academic months”*

Satisfying the consumer and maximizing business profits is the goal of every industry. The role of the nutritionists who are dedicated to this field and who are responsible for ensuring that wines have certain characteristics according to each case, is fundamental to achieve this. In addition, the habitual consumer has changed and is now much more demanding in terms of the mouth feel, texture, smell and taste of a wine. Therefore, in order to meet the demands, the specialists must make sure that the specific sensory profiles are met in each product with great precision.

The interpretation of food characteristics is directly influenced by the organoleptic compounds applied to it. In this sense, there is a strong demand from companies to have professionals who are up to date with the latest analytical techniques and ensure a quality product. For this reason, TECH has designed a specific program that lasts only 6 months and with which students will be able to master the sensory analysis of wine. An experience that integrates a team of expert oenologists in Gastronomy and that will provide the professional with exhaustive knowledge at the height of the demands of the sector.

In addition, this Postgraduate Diploma in Sensory Analysis in Enology, corresponds to a design adapted to the new media that facilitates student learning, thanks to its 100% modality and its audiovisual content. Students will also have a downloadable reference guide that they can access even without Internet, once they have saved it on their device. This opens up a range of possibilities for specialists who wish to train remotely with all the guarantees of success and with the endorsement of professionals who are already working in the wine business area.

This **Postgraduate Diploma in Sensory Analysis in Enology** 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 practical contents with which they are created, provide 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



*Enroll now in a program that will give you the time to study and work at the same time with the guarantee of a thorough training in the wine area"*

“

*Get into the clarification and analysis of different types of wines, thanks to the knowledge that TECH offers you and that will make you stand out in the labor market”*

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.

*Have you not yet mastered oxygen control applicable to winemaking? Avoid the accelerated evolution of wines by taking this Postgraduate Diploma in just 6 months.*

*Analyze the composition of the barrel material and discover how it can affect the physicochemical stability of the wine product through a 100% online program.*





# 02 Objectives

TECH has developed a didactic content that will introduce students to the visual, olfactory and gustatory assessment of all types of wines. This program aims to improve the skills of graduates in Nutrition and other professionals interested in the analysis of physical-chemical alterations in wines, their origin and how to prevent them, among many other aspects. In this way, the students will obtain the most updated knowledge to be part of the vanguard of the professional team that is now in the lines of work of the nutritional values of the wine industry. In addition, TECH will provide the best academic tools, which will not only have a positive influence on learning, but will also provide this program with the necessary dynamism to motivate users so that they can get the most out of their academic experience.







“

*With this program you will learn about the new analytical possibilities to investigate the main compounds in wine and their organoleptic influence”*



## General Objectives

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- 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



*Achieve your objective, grow personally and professionally, thanks to a program that incorporates the Relearning methodology so that you do not have to invest numerous hours in its study”*



## Specific Objectives

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### Module 1. Sensory Analysis and Organoleptic Alterations in Wines

- ♦ Recognize the main compounds in wine and their organoleptic influence
- ♦ Know how to evaluate visually, olfactory and gustatory all types of wines (dry, sweet, sparkling)
- ♦ Determine the temperature at which a wine should be kept and served, as well as whether or not it should be decanted
- ♦ Avoid the elaboration of wines with herbaceous tastes, by determining the optimum time of harvest and the elimination of green compounds from the cluster
- ♦ Examine the physicochemical alterations of wines, their origin and how to prevent them
- ♦ Know how to control how much oxygen we add to the wine during the different winemaking processes and during aging Learn how to avoid the accelerated evolution of wines
- ♦ Prevent the formation of sulfur or reduction odors, some of which are formed during the wine's time in the bottle
- ♦ Identify the different sensory alterations of a wine due to microorganisms Know when they can occur and how to correct them
- ♦ Encourage the use of environmentally friendly and non-allergenic preservation methods, trying to reduce the doses of sulfur dioxide in wines

### Module 2. Importance of the Oak Barrel in Wine Aging

- ♦ Be able to identify and understand the different stages of barrel manufacturing
- ♦ Illustrate the elements of differentiation between the different manufacturers
- ♦ Be aware that the barrel is not only an aromatic contribution, but also an element of wine stabilization
- ♦ Analyze the composition of oak

- ♦ Determine the difference between French, American, and Eastern European oak
- ♦ Examine the phenomena of interaction between the oak barrel and the wine
- ♦ Understand the importance of ellagitannins
- ♦ Be able to understand the concept of grain

### Module 3. Wine Clarification and Stabilization

- ♦ Be able to identify an organoleptic problem (gustatory, aromatic or visual) and be able to correct it by means of the different types of fining
- ♦ Give practical and visual examples to help identify the different instabilities or problems that can occur in a wine
- ♦ Determine solutions to avoid the problems of physical-chemical and microbiological instability of wine
- ♦ Avoid bad practices in the use of fining agents
- ♦ Promote the knowledge of wine altering microorganisms and to know how to avoid their development
- ♦ Analyze the filtration methods prior to wine stabilization, and to have the ability to choose the most appropriate one(s) according to the objectives to be achieved
- ♦ Make the students aware of the importance of stabilization in order to avoid problems with the final product or its depreciation on the market
- ♦ Encourage the student's interest in the use of ecological and non-allergenic products (fining agents) As well as, the choice of stabilization methods that involve less energy expenditure



03

# Course Management

TECH has called on a professional team that has been working for years in the sector on the chemical analysis of grape and wine components. Thanks to their collaboration, the students will not only have theoretical knowledge, but will also be able to apply the teachers' advice in a real-life scenario. In addition, the specialists will be able to contact the experts through a direct communication channel, through which they will be able to resolve all their questions on the subject. It is, therefore, a unique opportunity for those graduates in Nutrition who wish to be educated and updated in the organoleptic alterations of wines, being guided by professional models through a completely digital format.





“

*Don't wait any longer, learn with the teaching support of experts with extensive experience in the wine field so that you can adopt the keys of their performance in your work practice”*

## 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. Sáez Carretero, Jorge

- ♦ Viticulture Manager at Cepa 21 Winery
- ♦ Viticulture Technician at Fontana Winery
- ♦ Viticulture Manager at GIVITI
- ♦ Graduate in and Science Engineering from the Polytechnic University of Madrid
- ♦ Professional Master's Degree in Viticulture and Enology from the Polytechnic University of Madrid
- ♦ Accredited as Integrated Pest Management Advisor
- ♦ Accredited as Advisors of the Official Register of Producers and Operators of Phytosanitary Defense Means

### 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

### Ms. Masa Guerra, Rocío

- ♦ Winemaker at Bodegas Protos
- ♦ Assistant winemaker at Matarromera Winery
- ♦ Responsible for incoming grapes at Bodega Emilio Moro
- ♦ Responsible for quality at BRC and winemaker at Viñedos Real Rubio
- ♦ Winemaking Assistant at Bodega Solar Viejo
- ♦ Winery and vineyard manager at Ébano Viñedos y Bodegas
- ♦ Assistant winemaker and laboratory technician at Bodega El Soto
- ♦ Degree in Enology from the Escuela Técnica Superior de Ingenierías Agrarias de Palencia (Palencia School of Agricultural Engineering)
- ♦ MBA in Wine Business Management from the Business School of the Chamber of Commerce of Valladolid

# 04

# Structure and Content

The syllabus of this Postgraduate Diploma in Sensory Analysis in Enology has been designed by experts in the wine area who will be in charge of imparting all the theoretical and practical knowledge of the program and of guiding the enrolled specialists. In addition, students will have at their disposal audiovisual contents in different formats that will make their studies more dynamic so that they can obtain the best performance in their training. At the same time, the Relearning methodology applied by TECH will exempt the professionals from long hours of memorization and will make it possible for them to assimilate the contents of this program in a simple and gradual manner. A 100% online study that adapts to your availability and needs, through case simulations that will prepare you for real cases.



“

*With this Postgraduate Diploma you will be able to investigate the nutritional aspects of wine without leaving aside other areas of your life”*



## Module 1. Sensory Analysis and Organoleptic Alterations in Wines

- 1.1. Chemical composition of wine. Organoleptic impact
  - 1.1.1. Acids in Must and Wine
  - 1.1.2. Sugars in Grapes and Wines
  - 1.1.3. Phenolic compounds
  - 1.1.4. Alcohol
  - 1.1.5. Aromatic Compounds
  - 1.1.6. Other Wine Components
- 1.2. Wine Sensory Analysis Procedure
  - 1.2.1. Visual Phase
  - 1.2.2. Smelling Phase
  - 1.2.3. Taste Phase
  - 1.2.4. Conservation and Service of the Different Types of Wines Decanting and Aeration
- 1.3. Alterations in the Visual Phase of Wine
  - 1.3.1. Evolution of the Color and Increase of Tonality
  - 1.3.2. Presence of Turbidity
  - 1.3.3. Presence of Solids or Precipitates
- 1.4. Organoleptic Alterations Due to the Grape
  - 1.4.1. Herbaceous Aromas
  - 1.4.2. Chemical and Iodized Tastes
  - 1.4.3. Taste of Damp or Moist Soil
- 1.5. Alterations Due to Sulfur Compounds in Wine and their Reduction
  - 1.5.1. Formation of Sulfur Compounds During Alcoholic Fermentation
  - 1.5.2. Formation of Hydrogen Sulfide and Mercaptans During Wine Storage
  - 1.5.3. Disulfide Formation
  - 1.5.4. Taste of Light
- 1.6. Oxidative Alterations of Wine
  - 1.6.1. Oxidative Enzymes from Grapes
  - 1.6.2. Monitoring of Must and Wine Oxidation
  - 1.6.3. Ethanal or Acetaldehyde Formation
  - 1.6.4. Formation of Ethyl Acetate and Other Sensory Negative Acetates





- 1.7. Yeast Spoilage
  - 1.7.1. Re-fermentation
  - 1.7.2. Wine Flowers
  - 1.7.3. De-Acidification
  - 1.7.4. Formation of Ethyl-Phenols, Stable or "Animal" Odor
- 1.8. Alterations in Wine Related to Fungi and Certain Volatile Compounds
  - 1.8.1. Bitter Almond Taste
  - 1.8.2. Tricholo Anisole "Cork Taste"
  - 1.8.3. Tetrachloro Anisole and Other Wine Depreciating Compounds
- 1.9. Changes in Wine Due to Lactic Acid Bacteria
  - 1.9.1. Lactic Acid Pitting
  - 1.9.2. Smoked or Wine Fat
  - 1.9.3. Degradation of Organic Acids
  - 1.9.4. Degradation of Glycerol "Bitterness"
- 1.10. Alterations Due to Acetic Bacteria
  - 1.10.1. Acetic Acid Pitting
  - 1.10.2. Sugar Breakdown
  - 1.10.3. Wine Acid Transformation

## Module 2. Importance of the Oak Barrel in Wine Aging

- 2.1. Importance of Oak for Barrel Manufacturing
  - 2.1.1. Use of the Barrel History
  - 2.1.2. Knowledge about Cooperage Wood
  - 2.1.3. Use of Barrels in Dry White Wines
  - 2.1.4. Use of Barrels in Red Wines
- 2.2. Oak
  - 2.2.1. Morphology and Anatomy
  - 2.2.2. Botanical Differentiation and Origins
  - 2.2.3. Notion of Grain and Porosity
- 2.3. Wood Selection
  - 2.3.1. Selection in the Forest
  - 2.3.2. Selection at the Sawmill
  - 2.3.3. Selection in the Cooperage

- 2.4. Drying and Seasoning of the Wood
  - 2.4.1. Drying the Wood
  - 2.4.2. Seasoning the Wood
  - 2.4.3. Importance of Microorganisms During Drying
- 2.5. Manufacture of Barrels
  - 2.5.1. The Transformation of the Staves
  - 2.5.2. Assembly of the Staves
  - 2.5.3. The Toasting of the Barrel
  - 2.5.4. Manufacture of the Barrel Tops
  - 2.5.5. Finishing the Barrel
- 2.6. Aromatic Contributions of Oak Barrels
  - 2.6.1. Aromatic Contributions of French Oak
  - 2.6.2. Aromatic Contributions of American Oak
  - 2.6.3. Aromatic Contributions of Eastern European oak
- 2.7. Oak Tannin
  - 2.7.1. The Elagitannins
  - 2.7.2. Enological Interest
  - 2.7.3. Importance of Tannin in the Structure of Wine
  - 2.7.4. Kinetics of Tannin Release from the Barrel in Time
- 2.8. The Barrel, an Impermeable and Porous Container
  - 2.8.1. Impermeability of the Barrel
  - 2.8.2. Porosity of the Barrel
  - 2.8.3. Importance of the Barrel in the Aging Process
- 2.9. The Good Use of Oak Barrels
  - 2.9.1. Reception of New Barrels
  - 2.9.2. Maintenance of the Barrels Over Time
  - 2.9.3. Repair of Leaks
- 2.10. The Second Life of Oak Barrels
  - 2.10.1. The Interest of the Second-Hand Barrel
  - 2.10.2. The Use of Second-Hand Barrels for Spirits
  - 2.10.3. Alternatives to Enological Use





**Module 3. Wine Clarification and Stabilization**

- 3.1. Clarification of Red Wines
  - 3.1.1. Clarification of Tannins, Elimination of Harshness and Bitterness
  - 3.1.2. Clarification of Coloring Matter (Anthocyanins)
  - 3.1.3. Substitution of Allergenic Fining Agents in Red Wines
  - 3.1.4. Specific Clarification to Eliminate Microorganisms
- 3.2. Clarification of White and Rosé Wines
  - 3.2.1. Elimination of Wine Proteins
  - 3.2.2. Elimination of Oxidizable Polyphenols
  - 3.2.3. Substitution of Allergenic Clarification Agents in White and Rosé Wines
  - 3.2.4. Clarification for the Elimination of Microorganisms Prevention of Malolactic Fermentation
- 3.3. Wine Filtration
  - 3.3.1. Influence of Turbidity on Wine Stabilization
  - 3.3.2. Depth Filtration or Adsorption Filtration: Soil Filtration and Plate Filtration
  - 3.3.3. Tangential Filtration
  - 3.3.4. Direct Membrane Filtration
  - 3.3.5. Other Methods for Wine Purification after Clarification: Centrifuge, Decanter, Flotation
- 3.4. Stabilization of Potassium Bitartrate in Wine
  - 3.4.1. Origin of Potassium in Grapes and Wine
  - 3.4.2. Cation Exchange
  - 3.4.3. Cold Treatment of Wines
  - 3.4.4. Reverse Osmosis
  - 3.4.5. Use of Potassium Polyaspartate
  - 3.4.6. Carboxymethyl Cellulose and Metatartaric Acid
- 3.5. Stabilization of Calcium Tartrate
  - 3.5.1. Origin of Calcium in Grapes and Wine
  - 3.5.2. Factors Influencing the Formation of Calcium Tartrate Crystals
  - 3.5.3. Calcium Removal in Wine
- 3.6. Stabilization of Coloring Matter in Red Wines
  - 3.6.1. Origin and Formation of Anthocyanins in Grapes
  - 3.6.2. Fixation of the Coloring Matter
  - 3.6.3. Anthocyanin-Tannin Condensation
  - 3.6.4. Fixation and Stabilization of Anthocyanins with Polysaccharides
- 3.7. Instability Caused by Metals
  - 3.7.1. Ferrous Breakdown
  - 3.7.2. Copper Breakdown
  - 3.7.3. Other Physical-Chemical Instabilities
- 3.8. Microbiological Stabilization of Wine
  - 3.8.1. Microorganisms that Can Grow in Wine and their Origin
  - 3.8.2. Viticultural and Enological Conditions that Favor Microbial Growth
  - 3.8.3. Prevention of Microbial Growth
- 3.9. Prevention of Bacterial Growth and Elimination
  - 3.9.1. Acetic Acid Bacteria
  - 3.9.2. *Oenococcus Oeni*
  - 3.9.3. Other Lactic Acid Bacteria: *Lactobacillus* and *Pediococcus*
- 3.10. Preventing the Growth and Elimination of Yeasts and Molds
  - 3.10.1. *Bretanomyces*
  - 3.10.2. *Saccharomyces Cerevisiae*
  - 3.10.3. Apiculate Yeasts
  - 3.10.4. Molds

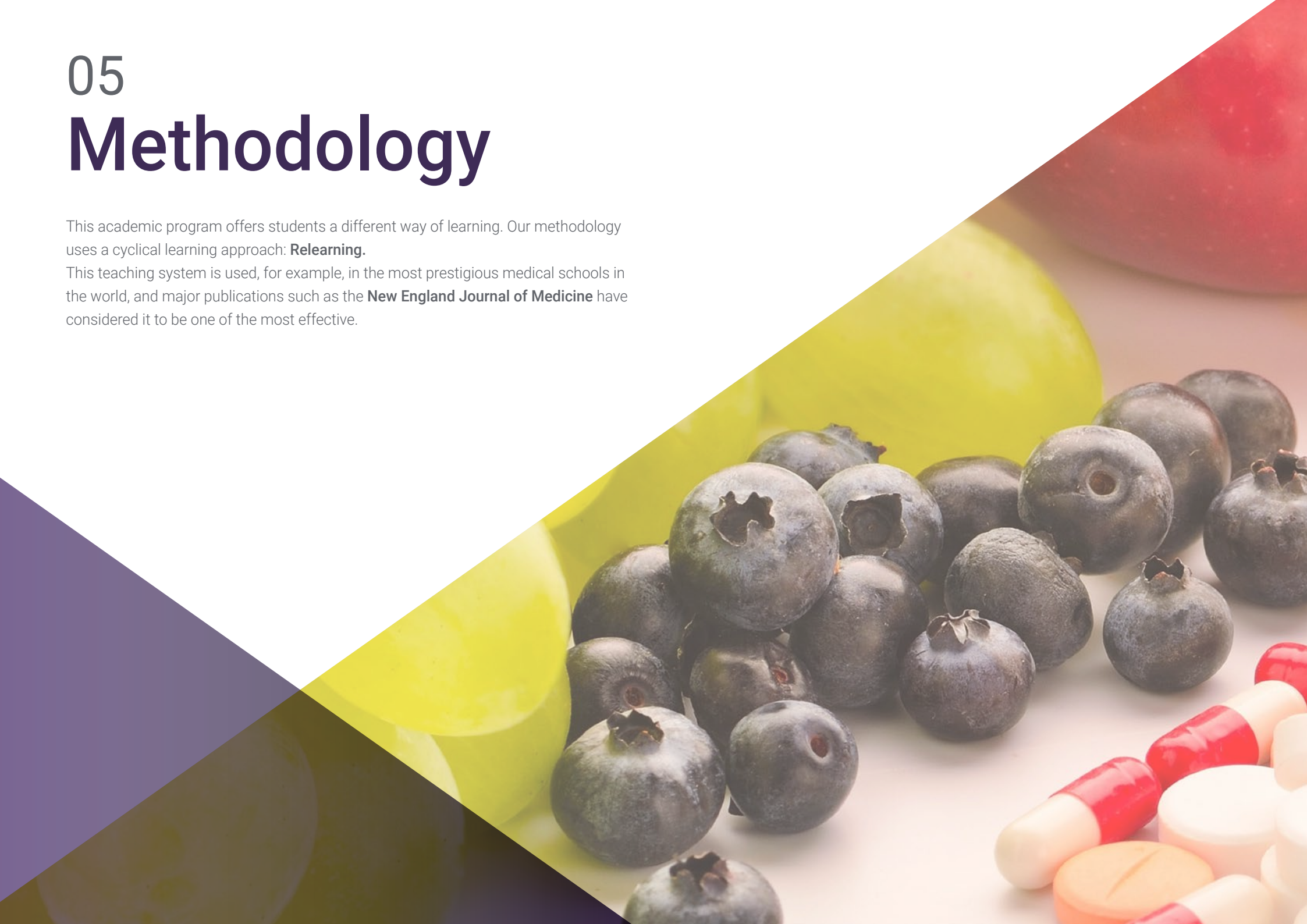


*A program designed for professionals like you, who wish to perfect their skills in a key oenological discipline for the nutritional quality of the product”*

# 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.





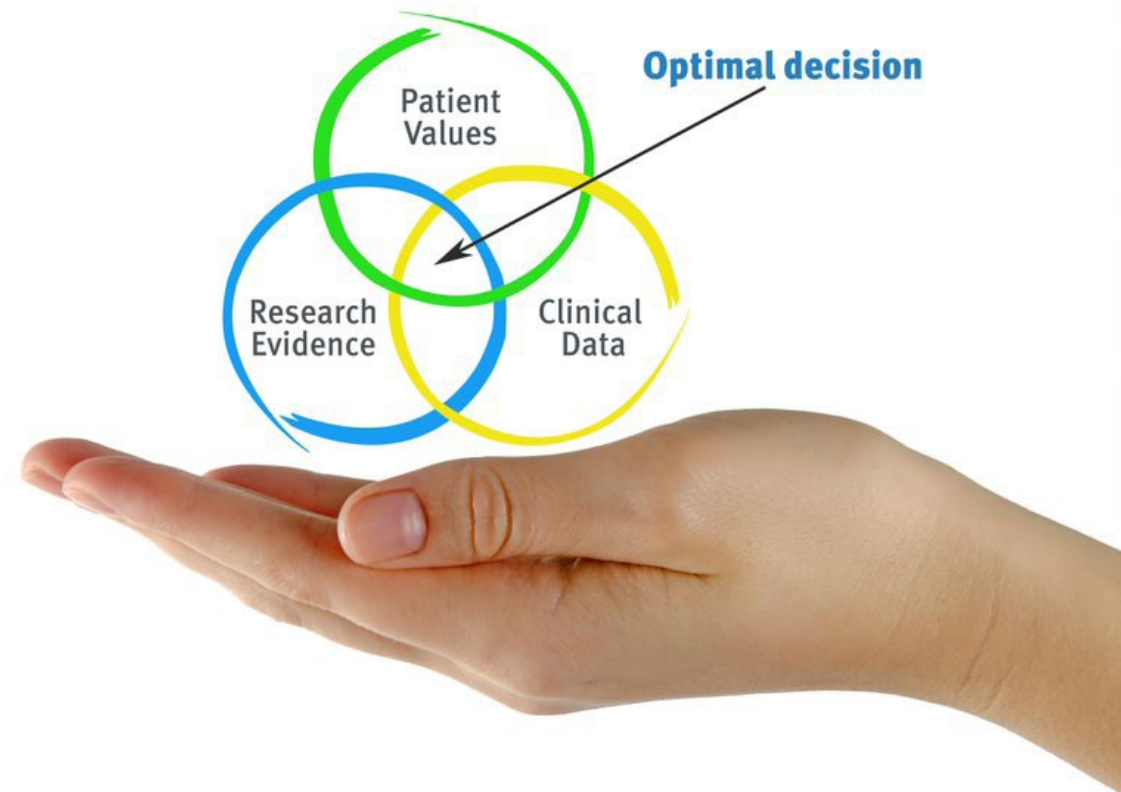
“

*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 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

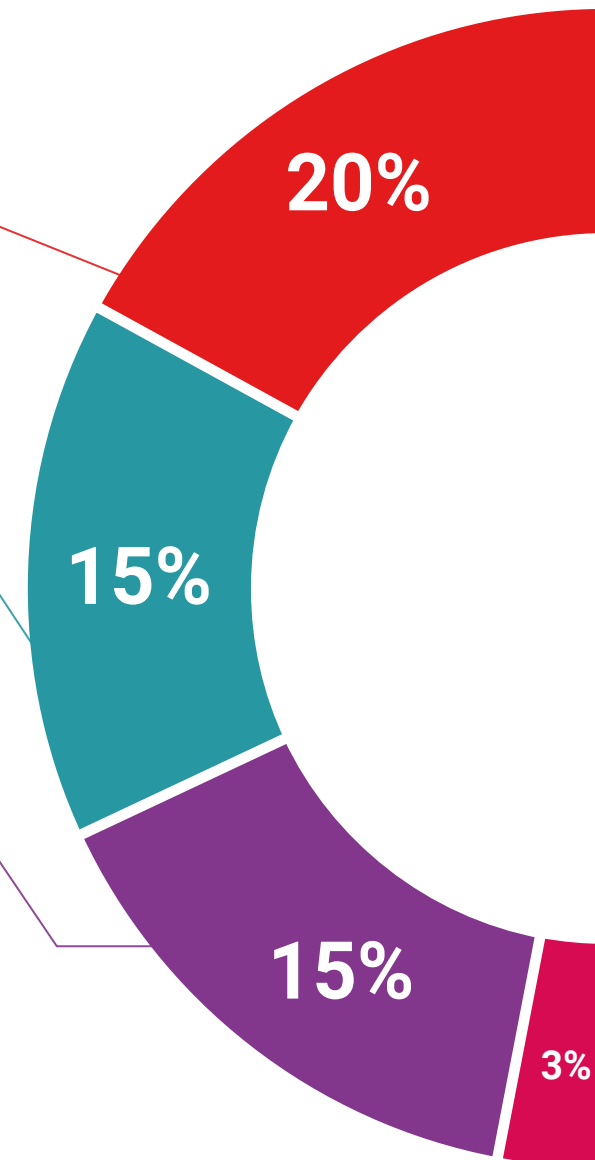
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

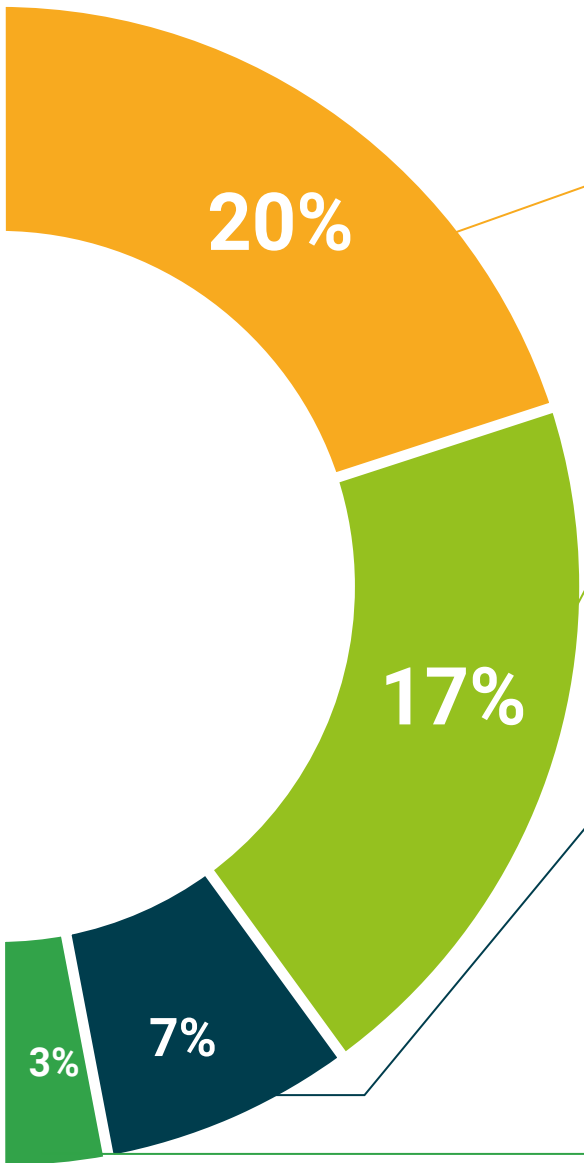


#### Additional Reading

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.



# 06 Certificate

The Postgraduate Diploma in Sensory Analysis in Enology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Diploma in Sensory Analysis in Enology** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Diploma in Sensory Analysis in Enology**

Official N° of Hours: **450 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.



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development language

virtual classroom

**tech** technological  
university

## Postgraduate Diploma

Sensory Analysis  
in Enology

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

# Postgraduate Diploma

## Sensory Analysis in Enology

