

# Postgraduate Diploma Sensory Analysis in Enology





## Postgraduate Diploma Sensory Analysis in Enology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

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

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# 01

# Introduction

The infinite types of wines that the wine industry is capable of producing require sensory methods to measure the properties of each type and maximize the impact and benefit of the final product. In the process of analyzing and interpreting the characteristics of food, unique organoleptic compounds are involved. The consumer of this product will take into account its mouth feel, texture, smell, taste and a multitude of other issues. To perfect these alterations in each type of wine, the industry has already incorporated the latest technology in the elaboration processes. In this sense, TECH has developed a program aimed at engineers who wish to broaden their knowledge in winemaking, the identification of errors and their physical-chemical and microbiological instability. All this, through a 100% online program, with which you will be able to promote the stabilization of wine and improve its final result.





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*With this Postgraduate Diploma you will perfectly master the organoleptic alterations of wines in only 6 academic months"*

Oenology devotes part of its development to sensory analysis. This scientific discipline allows wine to be analyzed through the senses and is essential in wine tasting. The aim is to provide the consumers with an experience that is pleasing to their senses and that is adjusted to the characteristics of each type of grape. Technology is directly involved in this process, as new advances have made it possible to vary fermentation and maceration methods and are fundamental in the production of the product.

In order to create high quality products that also respond to the high demand of the wine market, experts are needed to streamline, perfect and maximize the benefits of the companies in the sector. For this reason, TECH offers a training program for engineering graduates who want to develop their career towards the future of wine aging. In addition, this training will be guided in an exhaustive manner by expert teachers in the area, who guarantee the comprehensive instruction of the students.

The 100% online modality applied by TECH to investigate in this field, creates new online learning formulas, which provide facilities to the students. This Postgraduate Diploma in Sensory Analysis in Enology will be taught through audiovisual content that will be available to students whenever and wherever they need it with just a device and an Internet connection. In this way, TECH offers a unique academic experience and a possibility of professional development that aims to increase the theoretical and practical knowledge of specialists and increase their success in the wine labor market.

This **Postgraduate Diploma in Sensory Analysis in Enology** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Case studies presented by experts in Enological Engineering and Viticulture.
- ◆ 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 not only allow you to identify the physical-chemical alterations of wines, but will also allow you to locate their origin and how to prevent them"*

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*The microorganisms that alter wine have a direct impact on the final product. Get all the knowledge to detect faults in the winemaking process with a 100% online qualification"*

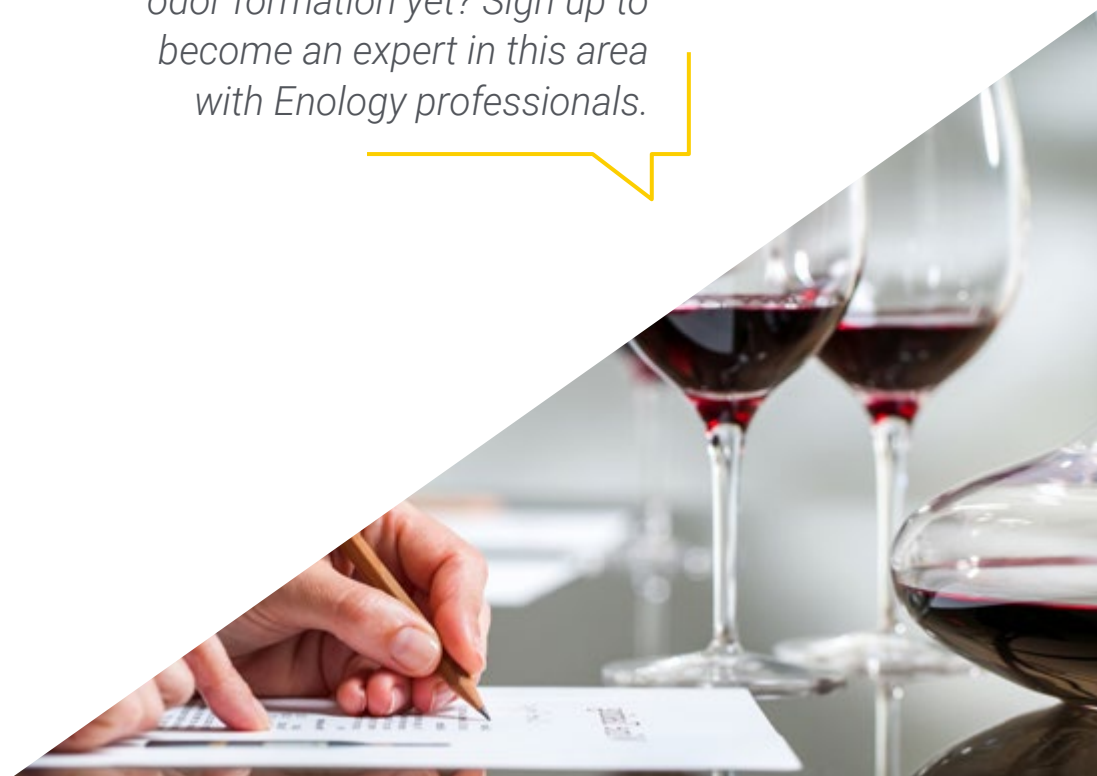
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*Thanks to the knowledge that TECH offers you, you will differentiate yourself from the rest of the professionals in your sector and you will obtain greater business opportunities in a constantly changing agricultural field.*

*Haven't you mastered sulfur odor formation yet? Sign up to become an expert in this area with Enology professionals.*



# 02

# Objectives

In order to create an efficient learning process, TECH has developed a didactic content that will introduce students to wine compounds and their organoleptic influence. Thanks to the audiovisual content and its downloadability, students will have all the tools at their disposal to study this Postgraduate Diploma. This program will enable students to prevent the formation of sulfur or reduction odors, as well as the different sensory alterations of wines associated with microorganisms. In this way, the graduate will obtain the update required in the wine labor market to propose alternatives to the errors present in the elaboration of the product.







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*A program designed for you to be part of the experts at the forefront of today's Enology and Viticulture"*



## 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
- ◆ Deepen in the sensory analysis of wine Aspects to evaluate and how to carry it out
- ◆ Identify the organoleptic alterations of the wine





## 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

Given the rigorous nature of winemaking, TECH has called on a professional team that has been working in the sector for years. Thanks to their contribution, the teachers will transmit the most current theoretical and practical knowledge, based on their experience and through a digital channel that will facilitate their study. This makes the Postgraduate Diploma a program that has all the guarantees and has been designed for graduates in Engineering and other professionals interested in the sensory analysis of wine.





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*Don't wait any longer, count on the teaching support of experts who have worked for years in the wine field so that you can adopt the keys to their business venture"*

## 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

### 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 to the Official Register of Producers and Operators of phytosanitary defense means.

### 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.

### 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 have not only contributed their theoretical knowledge to the contents. In addition, this team of teachers will share with the students the situations that have occurred in the long trajectory of their professional careers. Likewise, TECH applies the *Relearning* methodology to exempt the students from cumbersome hours of study, so that they can become experts in a simple and gradual way. In this way, the 100% online study will be adapted to your availability, through theoretical and practical exercises that will prepare you for real cases.







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*With this Postgraduate Diploma you will master the chemical composition of wine and understand how the alcohols and acids in the must influence the process through 450 hours of theoretical and practical material"*

## 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. Changes Due to Yeasts
  - 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. Barrel Manufacturing
  - 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

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*A program designed for professionals like you, who want to maximize your company's profits with technological tools that effectively reduce product errors"*

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"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*





*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



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.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. 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.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



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.



### 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.



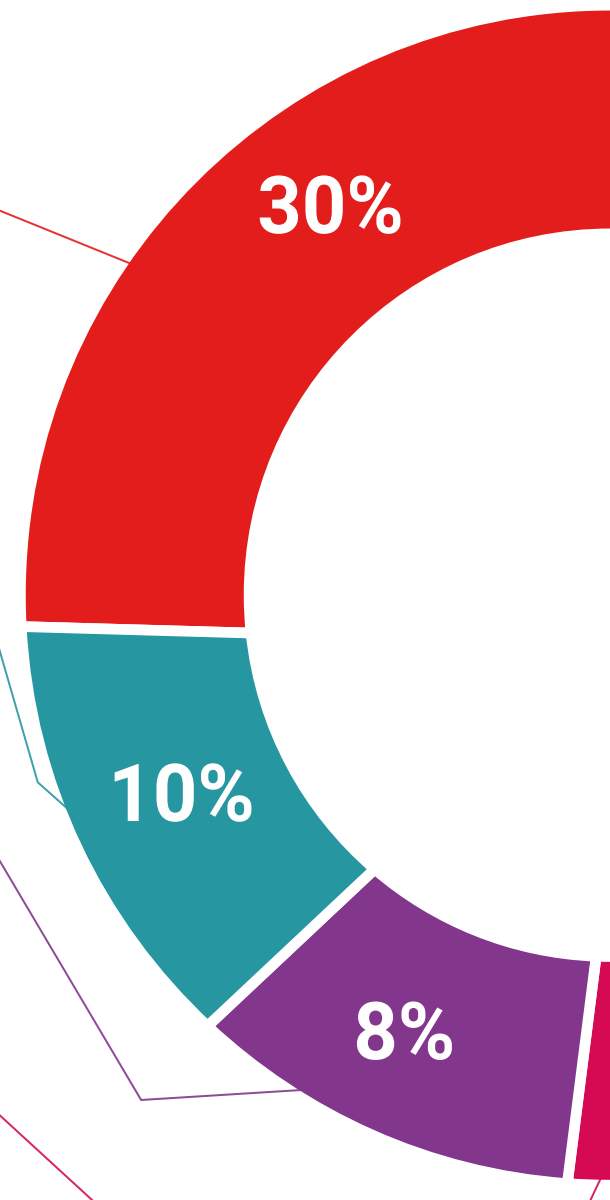
### Practising Skills and Abilities

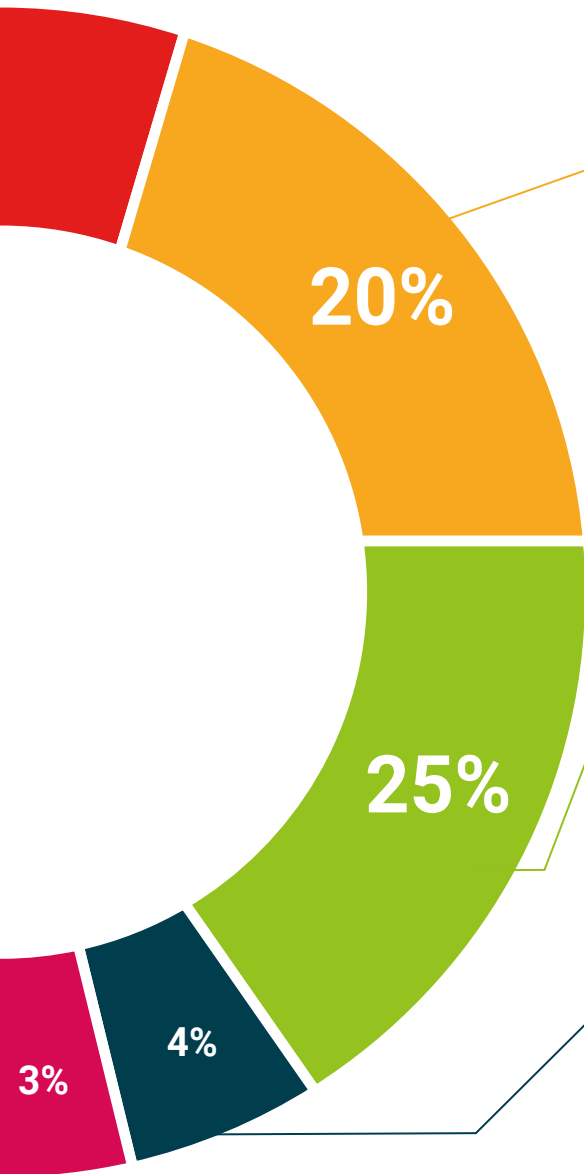
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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.





#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### 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".



#### 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.



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 Diploma issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Diploma in Sensory Analysis in Enology** 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.

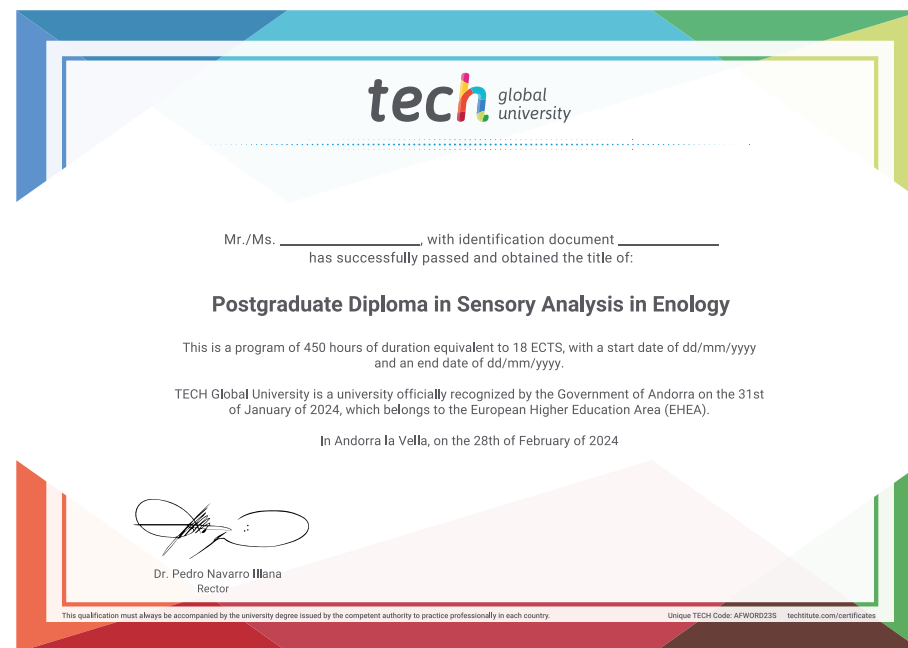
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

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

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**





future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development language  
virtual classroom



## Postgraduate Diploma Sensory Analysis in Enology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma Sensory Analysis in Enology