

# Postgraduate Certificate

## Wine Aging and Breeding



## Postgraduate Certificate Wine Aging and Breeding

- » 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/wine-aging-breeding](http://www.techtute.com/us/nutrition/postgraduate-certificate/wine-aging-breeding)

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# 01

# Introduction

One of the main keys that gives the wine a series of transformations and aromatic, gustatory and physical-chemical qualities is the time it spends in a barrel. This process, which lasts several months, will allow the beverage to be maintained over time and protect it against a possible negative evolution. Barrels can be of different types, each one of them influencing the contribution of aromas, flavors and, in short, those differentiating hints between the creations of one winemaker and another. Taking into account these innumerable details and the way in which the sector continues to grow and specialize, TECH has created this totally online program, with which students will be able to specialize in a totally flexible and adaptable way to the needs of each one.





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*Thanks to this specialization you will be able to develop to the maximum the most avant-garde enology in order to elaborate wines of excellent quality"*

The development of technology and materials in society has meant an unequivocal advance in terms of optimization, care and efficiency of product storage. While it is true that times change, there are certain activities that do not, or at least are not separated from what they were in their beginnings. With respect to wine storage, wine aging and aging processes have been based on the use of oak barrels.

Each of the different types of wood used, as well as the storage capacity of the barrels and the time that the beverage remains inside them, provide certain totally different taste, physical, chemical and olfactory characteristics. In specific terms, we will learn why and how oak barrels are used in the aging of wines, and we will analyze the different specificities of the different types of oak at the physical level and the impact they have in contact with the wine. It will determine the different stages in the manufacture of a barrel, from the felling of the tree itself to its arrival at the winery.

This Postgraduate Certificate is intended for any professional in the wine world to learn all the details related to the materials and applications of oak wood in wine preservation. Therefore, students will be able to develop their winemaking skills and move up to the next step in the field of Wine Aging and Breeding, positioning themselves at the helm of a sector that day after day demands the most qualified professionals.

A 100% online Postgraduate Certificate in which the materials, the organization and in general the study methodology are extremely flexible and adaptable to the needs of each student.

This **Postgraduate Certificate in Wine Aging and Breeding** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Case studies presented by experts in Enological Engineering and Viticulture
- Graphic, schematic, and practical contents with which they are created, provide scientific and 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



*You will learn about clarification and elimination of the components that can depreciate the wine"*

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*With this Postgraduate Certificate you will know and learn every detail about wine barrels and their importance in making a good wine"*

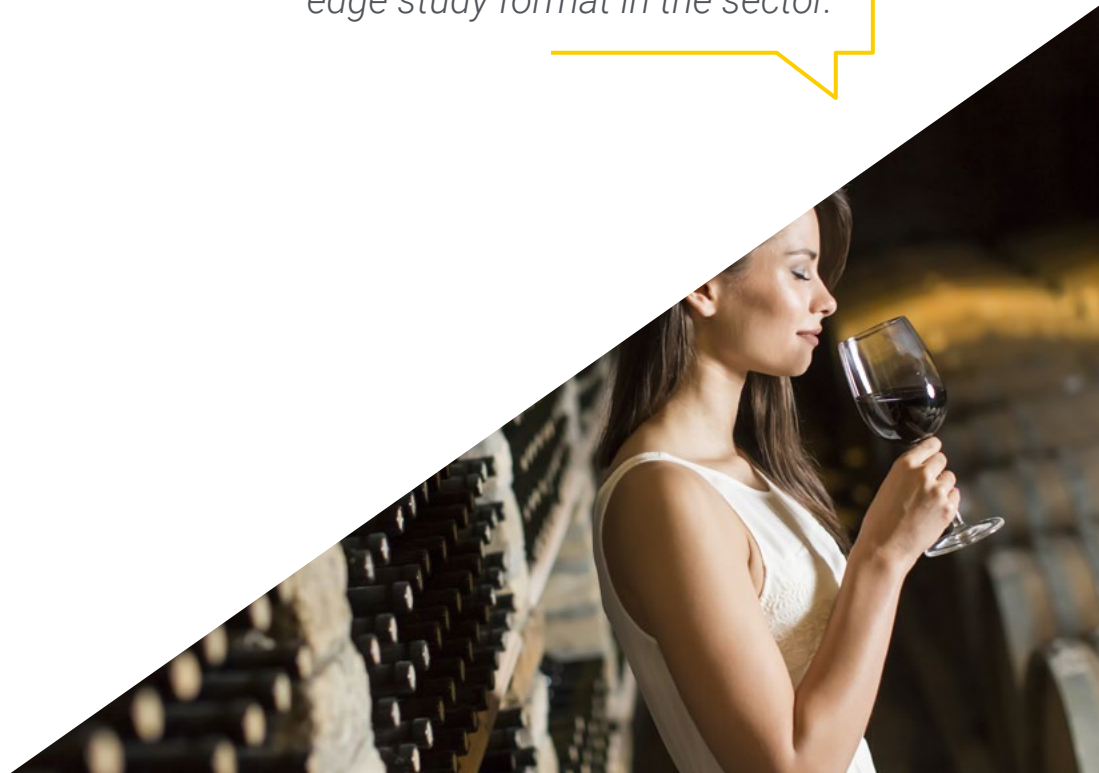
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*TECH has brought together many key skills from the world of winemaking to make this program a catapult for your future career.*

*Become a specialist in Wine Aging and Breeding with an innovative and cutting-edge study format in the sector.*





# 02 Objectives

The design of the program of this Postgraduate Certificate will enable the student to acquire the necessary competencies to specialize in Wine Aging and Breeding. The knowledge of the different types of barrel storage, the qualities that these can offer to the beverage depending on which materials, as well as the processes of maturation and conservation of the same, will make any professional seeking to differentiate themselves and position themselves at the forefront of the sector opt for this program. In a world in continuous growth it is key to know how to use new techniques or new information, and that is why TECH has established a series of general and specific objectives for the professionalization of its students.





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*Get trained with this program and learn about clarification and elimination of the different components that can depreciate the wine"*



## 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







## Specific Objectives

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- 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



*Thanks to a flexible and adaptive learning methodology, you will be able to learn in a dynamic and effortless way"*



03

# Course Management

In search of excellence in the materials that are taught, TECH has a framework of professionals with which it has been able to develop a content to specialize in relation to the Wine Aging and Breeding. With this in mind, this Postgraduate Certificate has a teaching group whose prestige in the field speaks for itself, and with which students will be able to continue developing their growth in this professional world.



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*Become an outstanding professional in the Wine Aging and Breeding sector with professionals of the highest prestige”*

## 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. 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

### 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

# 04

# Structure and Content

All the content included in the syllabus of this Postgraduate Certificate has been elaborated with the objective of providing the keys to develop a professional practice in Wine Aging and Breeding. From the first part of the module to the end of it, there will be a tour of each of the parts that make up the theoretical and practical keys of this professional activity.







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*In this Postgraduate Certificate you will learn the keys related to the use of the different types of oak and the way in which they influence the elaboration of a quality wine"*



## Module 1. Importance of the Oak Barrel in Wine Aging

- 1.1. Importance of Oak for Barrel Manufacturing
  - 1.1.1. Use of the Barrel History
  - 1.1.2. Knowledge about Cooperage Wood
  - 1.1.3. Use of Barrels in Dry White Wines
  - 1.1.4. Use of Barrels in Red Wines
- 1.2. Oak
  - 1.2.1. Morphology and Anatomy
  - 1.2.2. Botanical Differentiation and Origins
  - 1.2.3. Notion of Grain and Porosity
- 1.3. Wood Selection
  - 1.3.1. Selection in the Forest
  - 1.3.2. Selection at the Sawmill
  - 1.3.3. Selection in the Cooperage
- 1.4. Drying and Seasoning of the Wood
  - 1.4.1. Drying the Wood
  - 1.4.2. Seasoning the Wood
  - 1.4.3. Importance of Microorganisms During Drying
- 1.5. Barrel Manufacturing
  - 1.5.1. The Transformation of the Staves
  - 1.5.2. Assembly of the Staves
  - 1.5.3. The Toasting of the Barrel
  - 1.5.4. Manufacture of the Barrel Tops
  - 1.5.5. Finishing the Barrel
- 1.6. Aromatic Contributions of Oak Barrels
  - 1.6.1. Aromatic Contributions of French Oak
  - 1.6.2. Aromatic Contributions of American Oak
  - 1.6.3. Aromatic Contributions of Eastern European oak







- 1.7. Oak Tannin
  - 1.7.1. The Elagitannins
  - 1.7.2. Enological Interest
  - 1.7.3. Importance of Tannin in the Structure of Wine
  - 1.7.4. Kinetics of Tannin Release from the Barrel in Time
- 1.8. The Barrel, an Impermeable and Porous Container
  - 1.8.1. Impermeability of the Barrel
  - 1.8.2. Porosity of the Barrel
  - 1.8.3. Importance of the Barrel in the Aging Process
- 1.9. The Good Use of Oak Barrels
  - 1.9.1. Reception of New Barrels
  - 1.9.2. Maintenance of the Barrels Over Time
  - 1.9.3. Repair of Leaks
- 1.10. The Second Life of Oak Barrels
  - 1.10.1. The Interest of the Second-Hand Barrel
  - 1.10.2. The Use of Second-Hand Barrels for Spirits
  - 1.10.3. Alternatives to Enological Use



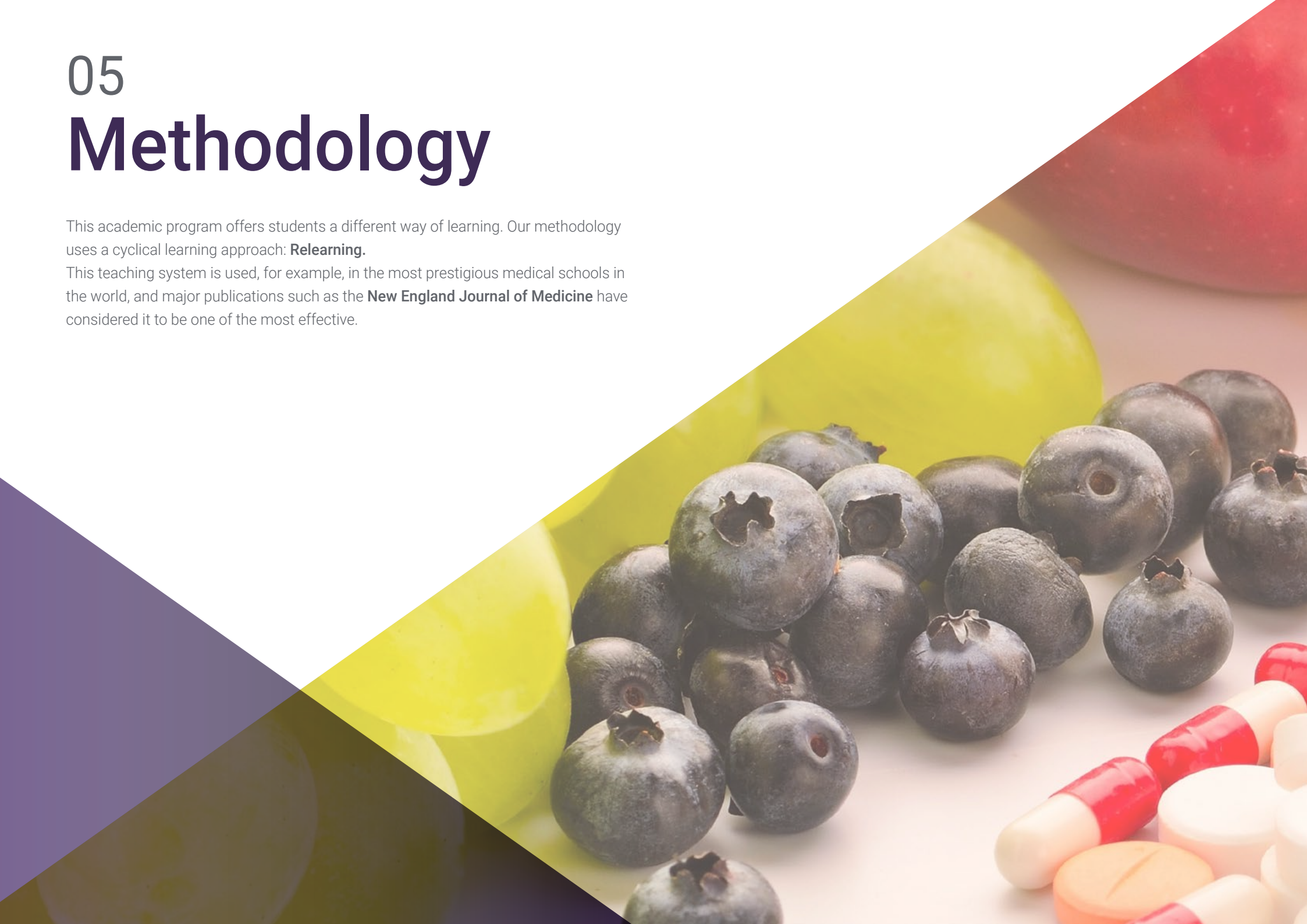
*A program created by industry leaders that seeks to turn you into a specialist in the field of Wine Aging and Breeding"*



# 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.







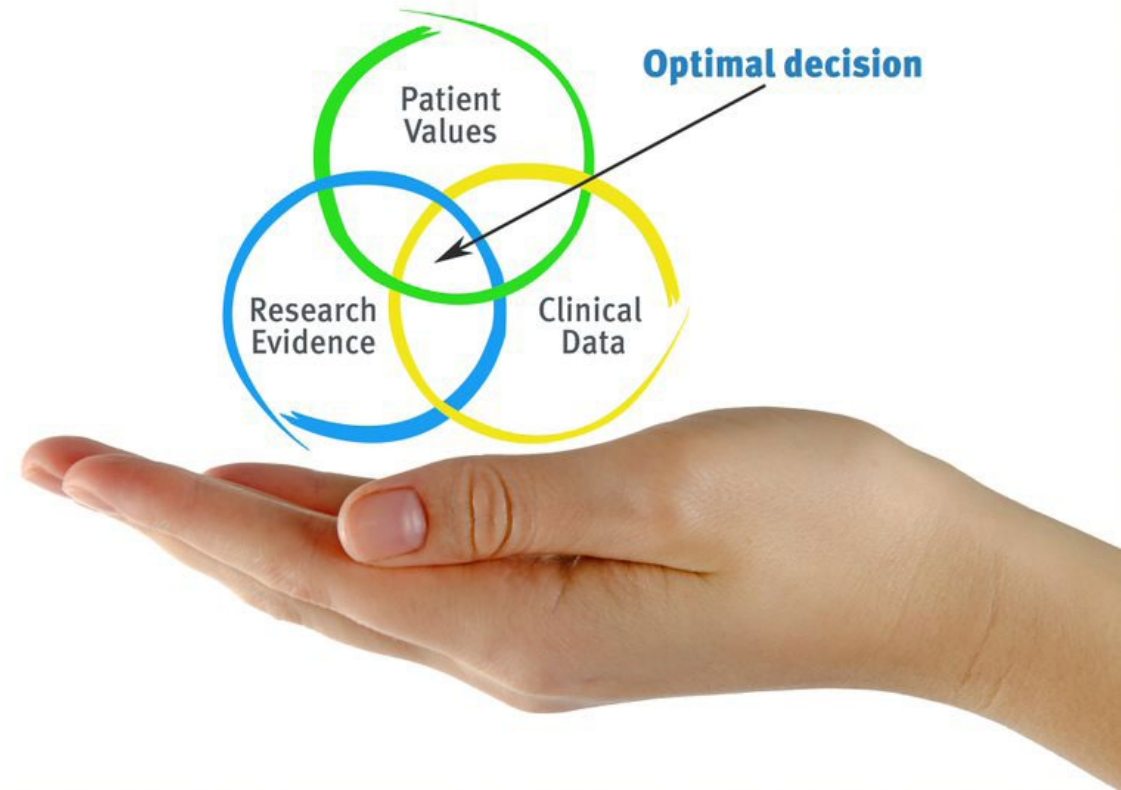
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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

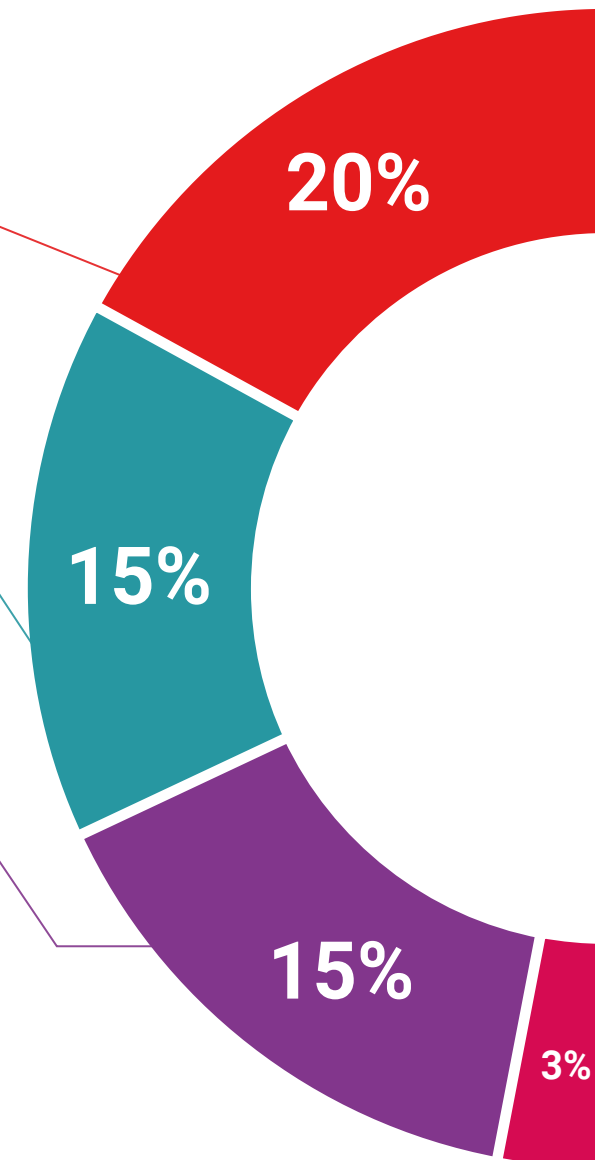
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

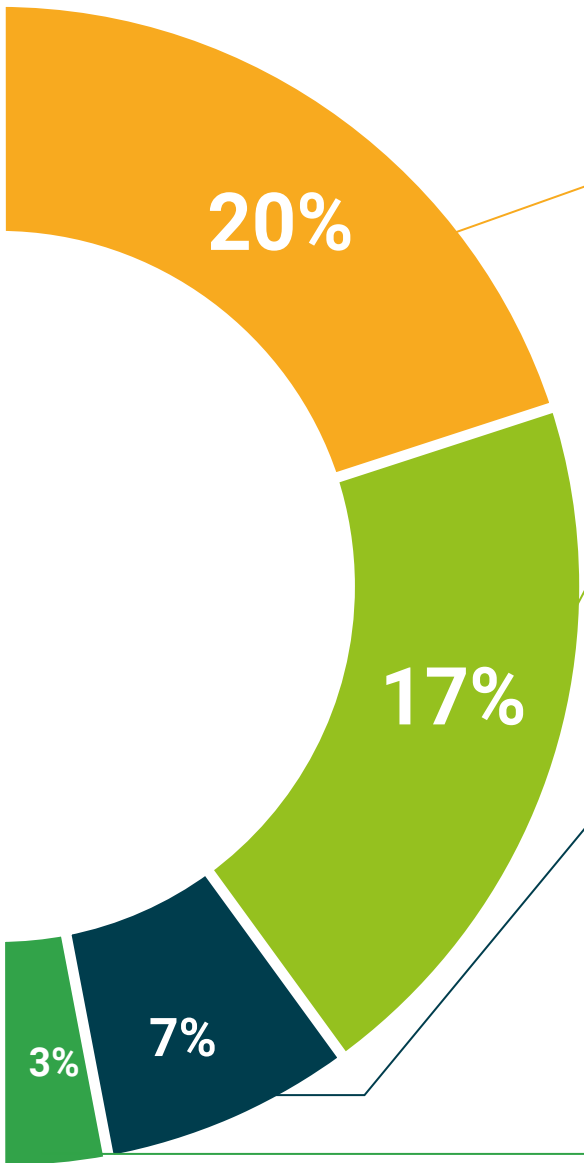


### Additional Reading

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 Wine Aging and Breeding 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 Wine Aging and Breeding** contains the most complete and up-to-date scientific program on the market.

After the students have 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 Wine Aging and Breeding**

Official No. 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.



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online transactions

development languages

virtual classroom

**tech** technological  
university

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