



Genetic Assessment in Dementias

» Modality:Online

» Duration: 6 weeks

» Certificate: TECH Global University

» Accreditation: 5 ECTS» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/genetic-assessment-dementias

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# 01 Introduction

Disorders that involve dementia require professionals to constantly update their knowledge of each of the advances that is being developed to fight against these diseases in this broad field of action. In this course we provide you with a study of the advances in the diagnosis and treatment of dementia as a result of the Genetic Assessment in Dementias that will allow you to improve your skills and position yourself at the forefront of specialization in this field.



### tech 06 | Introduction

Patients with forms of dementia gradually lose more and more of their abilities. For this reason, it's necessary to provide them with more personalized and multidisciplinary care, with professionals who are able to adapt to any situation and who have the most up to date knowledge in this field. By integrating the vision of specialists in neurology, geriatrics, psychiatry, neuro-radiology, nuclear medicine and neuropathology, we are able to offer training which is both complete and enriching.

Basic concepts will be taught in an advancing educational structure by leading professionals, in both functional and structural imaging biomarkers as well as in neuropathology, including genetic counseling and neuropsychology. We never miss the opportunity to train students to be able to deal with the diagnostic process and the management of people who suffer from rapidly progressive dementia in its different forms. In addition, the student will be presented with real situations within which they need to make clinical and diagnostic decisions which are all the more complex due to their differential diagnosis and their therapeutic approach.

The theoretical contents will be reinforced by clinical-practical cases, educational videos, online tutorials, as well as support material, always based on the latest information in the field.

This Postgraduate Certificate in Genetic Assessment in Dementias is an educational project that promises to train high-quality professionals. A program devised by professionals specialized in each specific field who encounter new challenges every day.

After completing this Postgraduate Certificate, the student with have sufficient knowledge to approach the management of people with dementia. From the first moment, they will know everything that comes with this type of disease, from its diagnosis, treatment and possible adverse effects to the importance of communication with the family members. So don't hesitate any longer and become a true professional through the latest educational technology 100% online.

This **Postgraduate Certificate in Genetic Assessment in Dementias** contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- Practical case studies presented by experts in dementia.
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- The latest information on treatment for dementia patients.
- Practical exercises where self-assessment can be used to improve learning.
- A special emphasis on innovative methodologies in the field of Dementia.
- 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



Don't miss the opportunity to study this Postgraduate Certificate in Genetic Assessment in Dementias with us. It's the perfect opportunity to advance your career".



With this Postgraduate Certificate, you will be able to update your knowledge of Genetic Assessment in Dementias and also obtain a qualification endorsed by TECH Global University"

The teaching staff includes professionals from the health sector, who bring their experience to this specialization program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

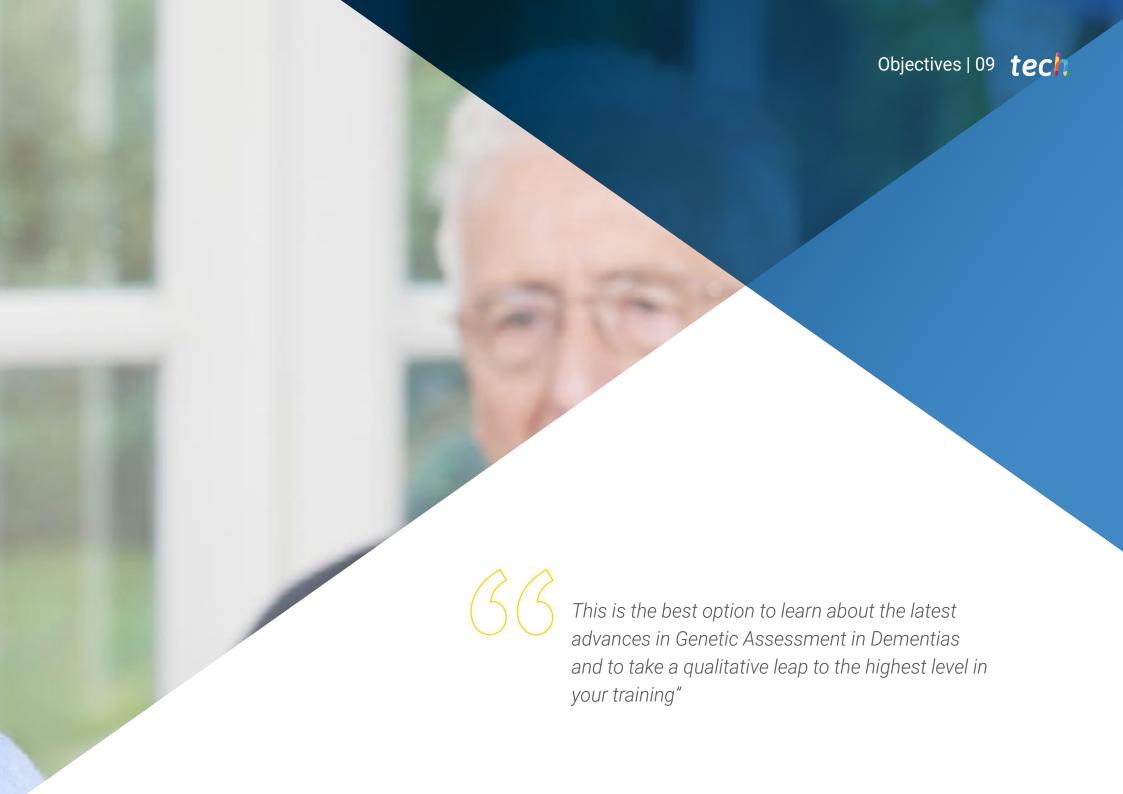
This program is designed around Problem-Based Learning, whereby the specialist must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned experts in Dementia with extensive experience.

The audiovisual content of this
Postgraduate Certificate will allow you
to advance quickly and efficiently by
immediately applying what you learnt into
your professional practice.

This 100% online course will allow you to combine your studies with your professional work while expanding your knowledge in this field.







### tech 10 | Objectives



### **General Objectives**

- Gain in-depth knowledge of dementia, how to diagnose it and how to treat it.
- Identify the risk factors and the possibility of prevention
- Enter the very versatile and extremely difficult field of dementia diseases
- Learn how to detect the early symptoms that could be a sign of this disease
- Explore clinical, motor, cognitive, dysautonomia and neuropsychiatric symptoms
- Know the different clinical presentations of the disease, some of which are first seen in a psychiatric consultation or in the form of neuromuscular or movement disorders before being associated with a type of dementia
- Learn the particularities for examining the signs and symptoms, both cognitive and behavioral, as well as understanding the therapeutic approach
- Train the students in the knowledge of the different assessment tools and cognitive rehabilitation used in various dementias
- Understanding genetically conditioned dementias and their inheritance patterns
- Know the different neuroimaging equipment and radiotracers available to evaluate the specific processes involved in neurodegenerative conditions with dementia
- Provide knowledge on the different imaging techniques used in the evaluation of patients with cognitive impairment, both structural studies with CT or MRI, and functional studies that can be performed with MRI or Perfusion and Diffusion studies, as well as functional

#### MRI studies

- Know the indications and usefulness of each technique in the different causes of dementia
- Delve into the study of Alzheimer's disease, with emphasis on early diagnosis, as well
  as on imaging markers that allow assessment of progression and possible response to
  treatment
- Interpret the most important lesions which characterize the different neurodegenerative pathologies
- Know the main categories of rapidly progressive dementia syndromes, the most prevalent diseases in each one of these categories and the diagnostic algorithm to follow
- Learn to consider important aspects when assessing older people with cognitive deterioration or dementia, taking into account both the impact of neurodegeneration as well as the clinical evolution of people suffering from this condition





### Module 1. Genetic Assessment in Dementias

• Include the genetic aspect of neurocognitive diseases associated with dementia







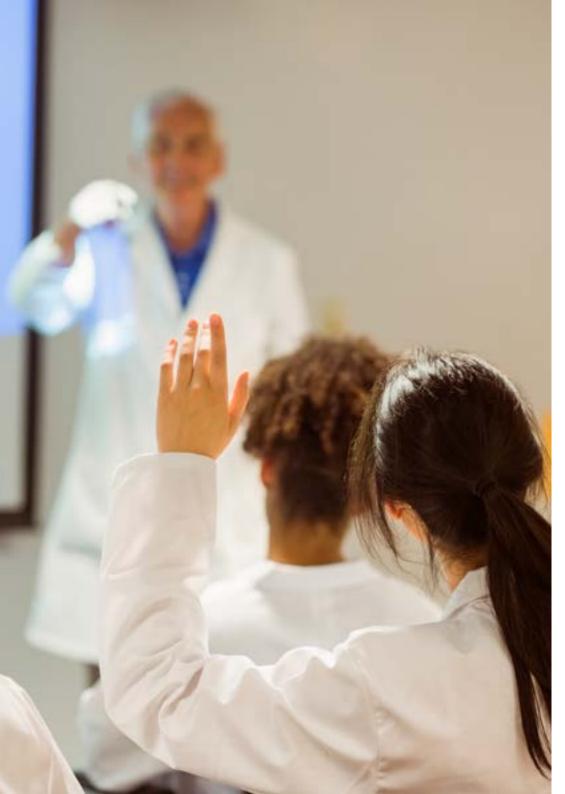
### tech 14 | Course Management

### Management



### Dr. Manzano Palomo, María del Sagrario

- Specialist Physician of the Neurology Service in the Cognitive Pathology Unit of the Hospital Universitario Infanta Leonor.
- Coordinator of the Behavioral Neurology and Dementias Group of the Spanish Society of Neurology.
- Reviewer of the Neurology Journal of the Spanish Society of Neurology
- Associate Professor in Medicine at the Complutense University of Madrid.
- Doctorate in Medicine, University of Alcala
- Degree in Medicine from the Complutense University of Madrid.
- Credits in the Doctorate in Neuroscience from the Complutense University of Madrid.
- Advanced Studies Diploma from the Complutense University of Madrid
- MIR Program, Specialty of Neurology at Hospital Clínico San Carlos, Madrid.
- Member of: Neurogeriatrics Group of the Spanish Society of Neurology and Rotating Committee of the Journal Alzheimer, Realities and Research in Dementia



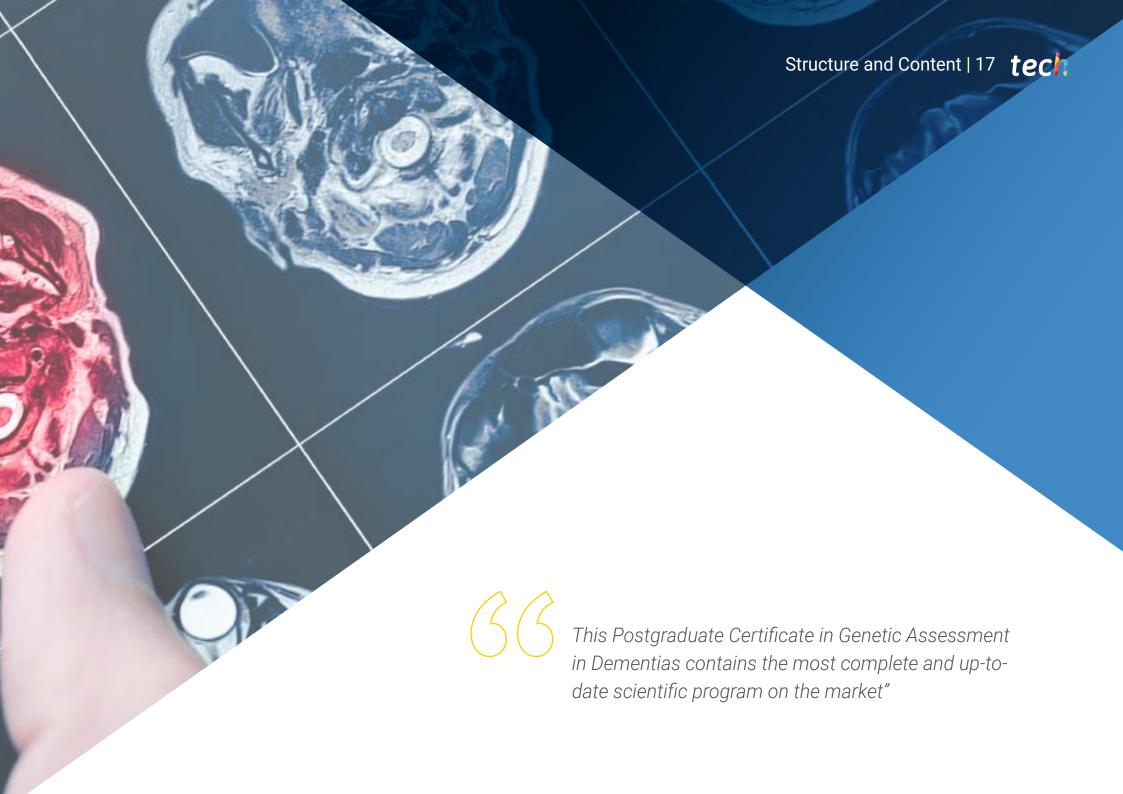
### Course management | 11 tech

### **Professors**

#### Dr. Clarimón, Jordi

- Expert Researcher in Alzheimer's Disease and other Dementias
- Head Researcher at the Genetic Unit of Neurodegenerative Diseases at Sant Pau
- Biofluidics Specialist in Neurological Disorders at Lundbeck A/S
- Post-doctoral stay at the National Institutes of Health in Bethesda and Maryland in the laboratory of Dr. John Hardy
- PhD in Biological Sciences from the Univeristy of Pompeu Fabra
- Degree in Biology from the University of Barcelona





### tech 18 | Structure and Content

### Module 1. Genetic Assessment in Dementias

- 1.1. Introduction
- 1.2. Genetics in Alzheimer's Disease
  - 1.2.1. Prevalence
  - 1.2.2. Mendelian Genetics
  - 1.2.3. Susceptibility of Genes
  - 1.2.3. Recommendations in Clinical Practice
- 1.3. Genetics in Vascular Dementia
  - 1.3.1. Recommendations in Clinical Practice
- 1.4. Genetics of Fronto-Temporal Dementias
  - 1.4.1. Genetics of BVFTD
  - 1.4.2. Genetics in FTD with Parkinsonism
  - 1.4.3. Genetics in FTD-ALS
  - 1.4.4. Genetics of Primary Aphasia
  - 1.4.5. Clinical-Genetic Correlations
  - 1.4.6. Recommendations in Clinical Practice
- 1.5. Genetics of Prion Diseases
  - 1.5.1. Recommendations in Clinical Practice
- 1.6. Diagnostic Algorithm
  - 1.6.1. Diagnostic Algorithm in Alzheimer's Disease
  - 1.6.2. Diagnostic Algorithm in FTD
- 1.7. Genetic Counseling
  - 1.7.1. Concept of Genetic Counseling
  - 1.7.2. Practical Examples PSEN1 Gene, C90RF72 Gene, AP0E4 Gene, CADASIL Cases, Progranulin Gene



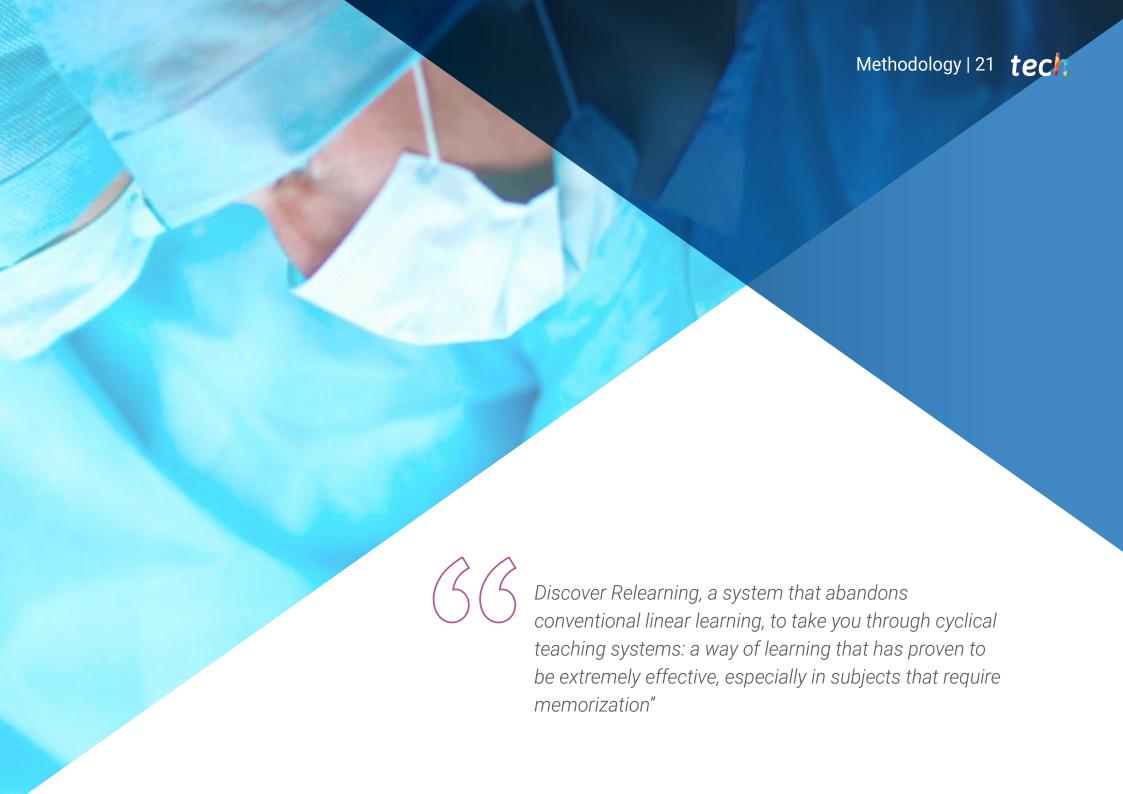






A unique, key, and decisive educational experience to boost your professional development"





### tech 22 | Methodology

### At TECH, we use the Case Method

What should a professional do in a given situation? 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 you will 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 in the physician's professional practice.



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

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

- 1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 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.



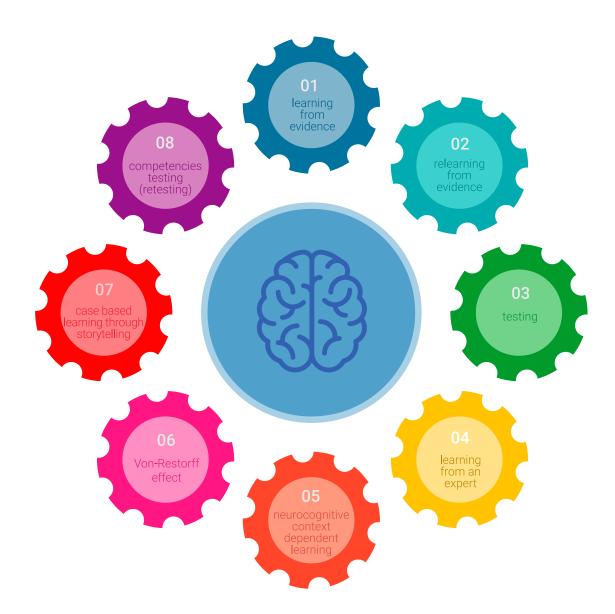


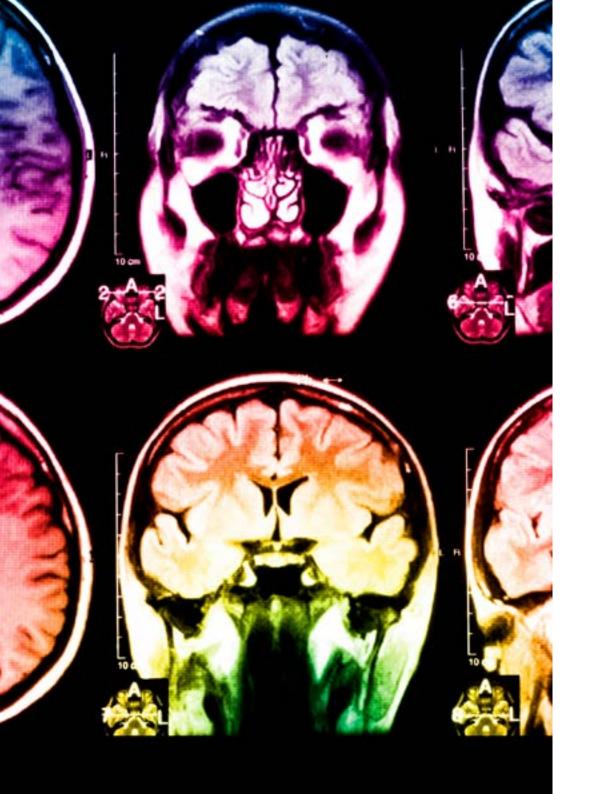
### **Relearning Methodology**

At TECH, we enhance the Harvard 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.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-theart software to facilitate immersive learning.





### Methodology | 25 tech

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 250,000 physicians have been prepared with unprecedented success in all clinical specialties regardless of surgical load. Our educational methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then adapted in audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high-quality pieces in each and every one of the materials that are made available to the student.



#### **Surgical Techniques and Procedures on Video**

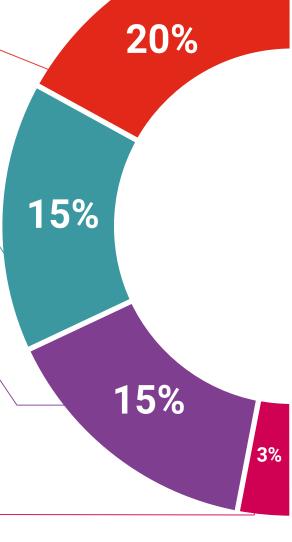
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many 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 assess and re-assess 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

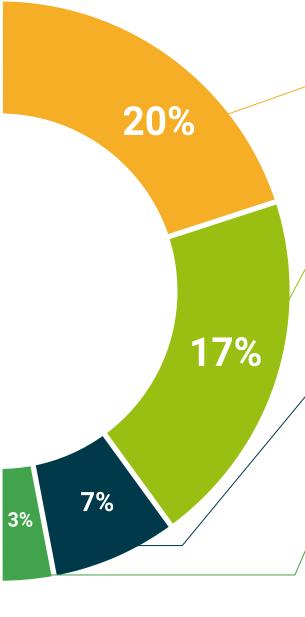


There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

#### **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.







### tech 32 | Diploma

This program will allow you to obtain a **Postgraduate Certificate in Genetic Assessment in Dementias** 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 Certificate in Genetic Assessment in Dementias

ECTS: 5

Official No of Hours: 125 hours.



Mr./Ms. \_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Certificate in Genetic Assessment in Dementias

This is a private qualification of 150 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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- » Exams: online

## Postgraduate Certificate

Genetic Assessment in Dementias

