



Diagnostic Techniques in Allergic Diseases

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/diagnostic-techniques-allergic-diseases

# Index

O1 O2
Introduction Objectives

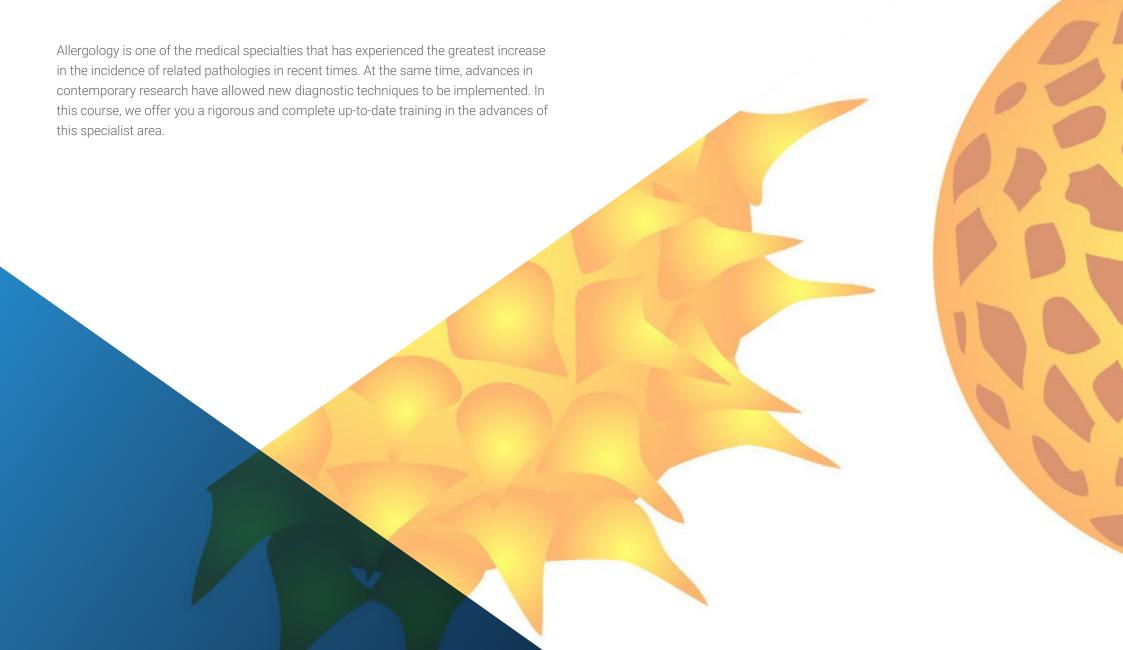
03 O4 O5
Course Management Structure and Content Methodology

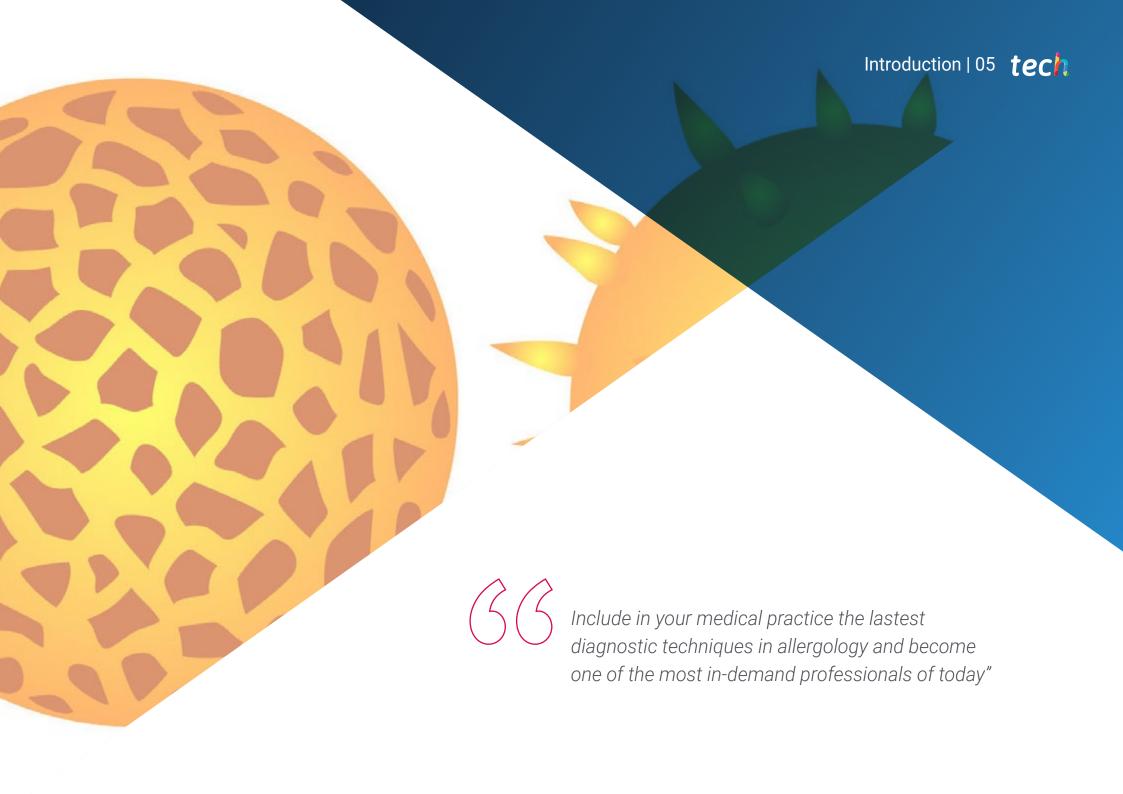
p. 12 P. 18 O6

06 Certificate

p. 30

# 01 Introduction





### tech 06 | Introduction

Allergology has seen how, in recent years, the number of people affected by the different forms of manifestation of the disease has increased notably. In the last two decades, this increasing trend has been particularly noticeable among children. And yet, very few countries have specialized services in this medical field.

This prevalence has led to allergy being considered a major health problem: according to the WHO, hundreds of millions of people suffer from rhinitis, one of the most common allergy conditions, and at least 300 million suffer from asthma. In addition to these figures, there is an enormous variety of other common and new allergies that have become commonplace in the specialist's office.

This training program has been created with the aim of providing professionals with specific training in the field of allergology to equip them with the most up-to-date knowledge in diagnosis and intervention.

In this sense, the professional must be able to offer their patients a study of their disease in which the recognition of allergens is a priority in order to work towards a lifestyle that aims to avoid symptoms and, with them, the progression of the disease.

During this training, you will learn about new lines of research and practice in allergic disease with a special interest in areas such as asthma and diagnosis by inflammatory genotypes or measurements: induced sputum, flow cytometry, measurement of cytokines and interleukins.

A comprehensive refresher program that will also allow you to incorporate Big Data and telemedicine skills. Work routines that will provide you with a new spectrum of performance and permanent growth.

This **Postgraduate Certificate in Diagnostic Techniques in Allergic Diseases** offers you the characteristics of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- b The latest technology in online teaching software.
- b Highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand.
- Practical cases presented by practising experts.
- b State-of-the-art interactive video systems.
- Teaching supported by telepractice.
- b Continuous updating and recycling systems.
- **b** Autonomous learning: full compatibility with other occupations
- **b** Practical exercises for self-evaluation and learning verification.
- Support groups and educational synergies: questions to the expert, debate and knowledge.
- **b** Communication with the teacher and individual reflection work.
- Content that is accessible from any fixed or portable device with an Internet connection
- **b** Supplementary documentation databases are permanently available, even after the course



Get up-to-date in one of the most indemand specialties, with 30-40% of the world's population affected by allergies".



A complete review of the latest diagnostic techniques allowing you to apply them to your medical practice almost immediately".

Our teaching staff is composed of medical professionals and practising specialists. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of doctors trained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will put at the service of the course the practical knowledge derived from their own experience: one of the differential qualities of this training.

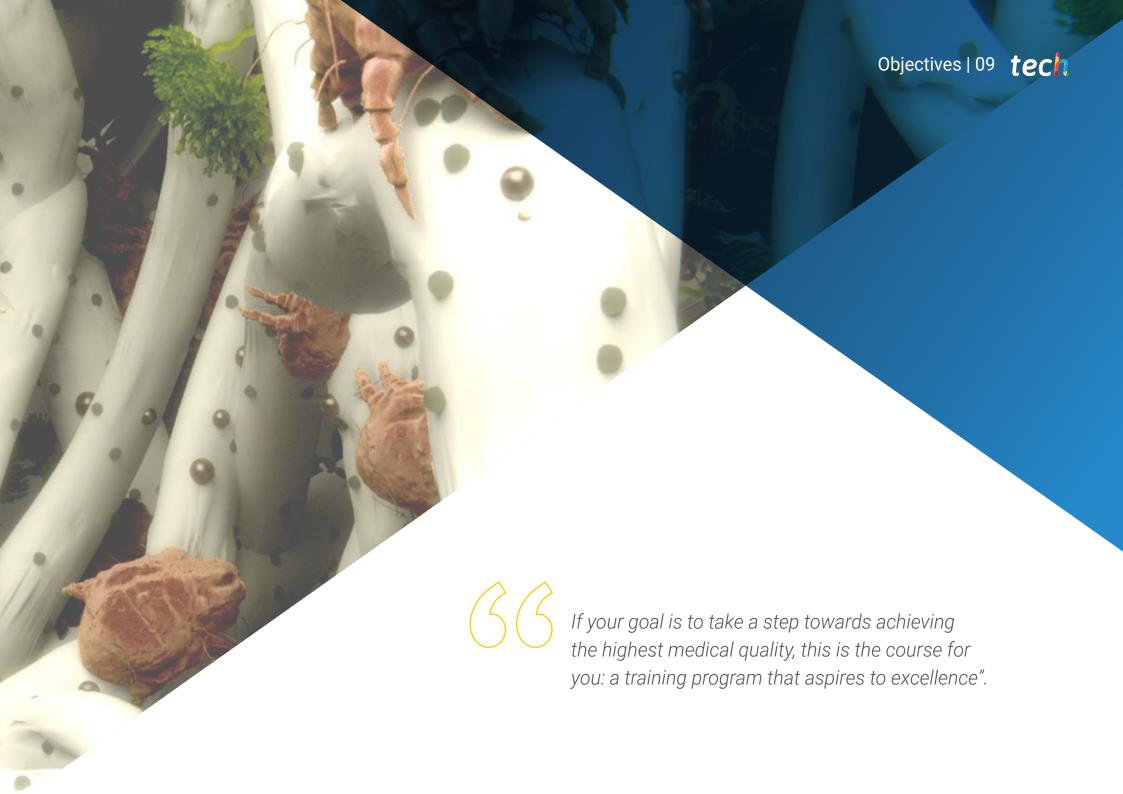
This mastery of the subject is complemented by the effectiveness of the methodological design of this course in Diagnostic Techniques in Allergic Diseases. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

We offer you the latest developments in advanced allergology, helping you acquire knowledge of new ways of working and approaching patients.

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "learning from an expert"





### tech 10 | Objectives



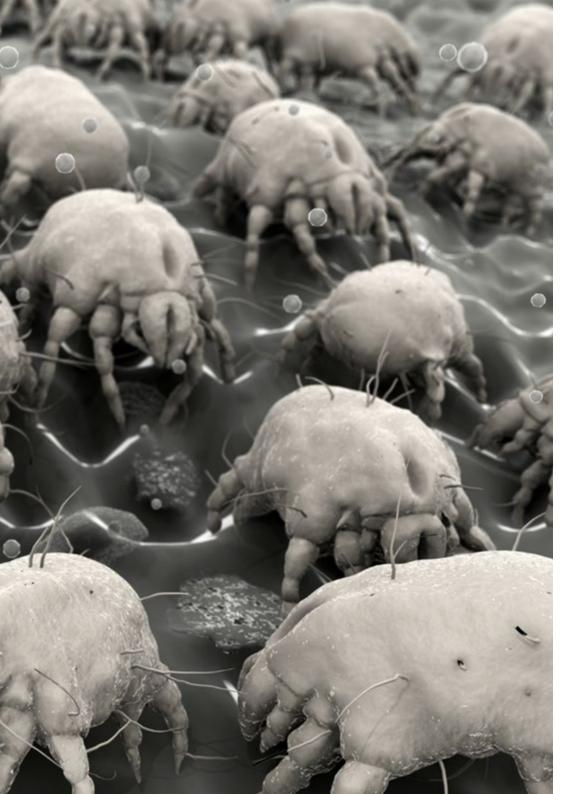
### **General Objectives**

- Define 21st century allergology
- P Recognize new forms of allergic disease conditions
- **b** Review the latest international practices in allergology
- **b** Learn the new international lines of research in allergology
- **b** Become familiar with new approaches
- PRecognize the importance of allergic disease in primary care morbidity.
- Recognize allergens for appropriate preventive intervention and reduce the risk of exposure as a priority preventive measure



Acquire the necessary knowledge to offer quality practice in the field of allergology, providing your patients with expert and effective care"







### **Specific Objectives**

- **b** Address diagnostic techniques for traditional allergic diseases.
- **b** Learn the characteristics of component diagnostics.
- b Learn the characteristics of the induced sputum technique to phenotype patients.
- Know and apply in daily clinical practice the traditional in-vivo techniques for diagnosing allergic diseases: Prick test, Epicutaneous tests
- b Know and apply modern in-vitro diagnostic techniques in clinical practice: Component-based diagnosis in allergic diseases due to different allergens, Basotest, Induced Sputum.
- b Understand and define the most commonly used equipment in the allergic specialty, from spirometry, rhinomanometry, acoustic rhinometry, measurement of exhaled nitric oxide, etc.
- **b** Understand and know how to use diagnostic techniques for comorbidities of allergic diseases. Gastroesophageal Reflux, Sleep Disorders, etc.



### tech 14 | Course Management

#### **International Guest Director**

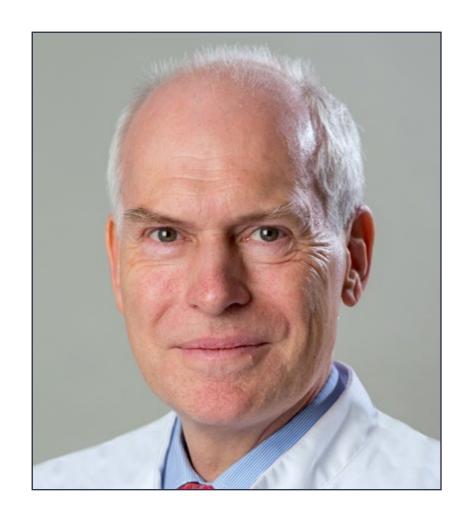
Dr. Torsten Zuberbier's outstanding professional and research career has left an indelible mark on the medical management of allergic diseases. The expert's healthcare competencies and prestige have enabled him to serve for almost two decades as President of the Foundation of the European Center for Allergy Research.

He also holds the main management positions at the Institute for Allergy Research at the Charité Berlin University and at the Fraunhofer Institute for Translational Medicine and Pharmacology, together with Professor Marcus Maurer.

On the other hand, his clinical work focuses on Urticaria, Neurodermatitis, Respiratory and Food Allergies and Allergic Rhinitis. However, his research and experimental work has been devoted to Mast Cell Biology, Mastocytosis and Atopic Dermatitis. Specifically, his studies have delved into the interaction of these immune cells with tissue-type cells. In this way, through a three-dimensional skin model, he has examined the close relationship between these processes and the development of other pathologies such as Eczema and Epidermal Neoplasia.

In this regard, this expert has numerous academic articles in scientific journals of global impact. He is Deputy Editor of the Journal of the German Dermatological Society and a member of the Advisory Board of the Allergo Journal. In these publications, the specialist has also disclosed his views on the relevance of Translational Medicine and the importance of accelerating the applied integration of the latest scientific knowledge.

In addition to this work, Dr. Zuberbier is President of the Global Allergy and Asthma Network of Excellence (GA<sup>2</sup>LEN), initiated by the European Union. He has also been Director General of the Dermatology, Venereology and Allergology Clinic of the Charité and has led the Allergie-Centrum-Charité of the Berlin-Mitte Dermatology Clinic.



### Dr. Zuberbier, Torsten

- · Co-Director of the Fraunhofer Institute for Translational Medicine and Pharmacology
- · President of the Foundation of the European Center for Allergy Research
- · Chairman of the Global Allergy and Asthma Excellence Network (GA<sup>2</sup>LEN)
- · Co-Director General of the Clinic of Dermatology, Venereology and Allergology of the Charité
- · Director of the Allergie-Centrum-Charité of the Dermatology Clinic Berlin-Mitte
- · Head Physician for Dermatology at the Virchow Clinic in Berlin
- · Honorary Doctorate of the University of Athens
- · Specialist in Dermatology at the University of Perth Australia
- · Medical Degree at the Freie Universität Berlin



Thanks to TECH, you will be able to learn with the best professionals in the world"

### tech 16 | Course Management

#### Management



#### Dr. Fernández Nieto, María del Mar

- · Assistant Physician, Allergology Unit, Jiménez Díaz Foundation IIS CIBERES (Respiratory Diseases)
- Asthma Multidisciplinary Unit
- · Member of the SEAIC Asthma Committee
- Member of the NeumoMadrid Asthma Group
- Member of the SEPAR Asthma Working Group
- Member of ERS
- Member of EAACI

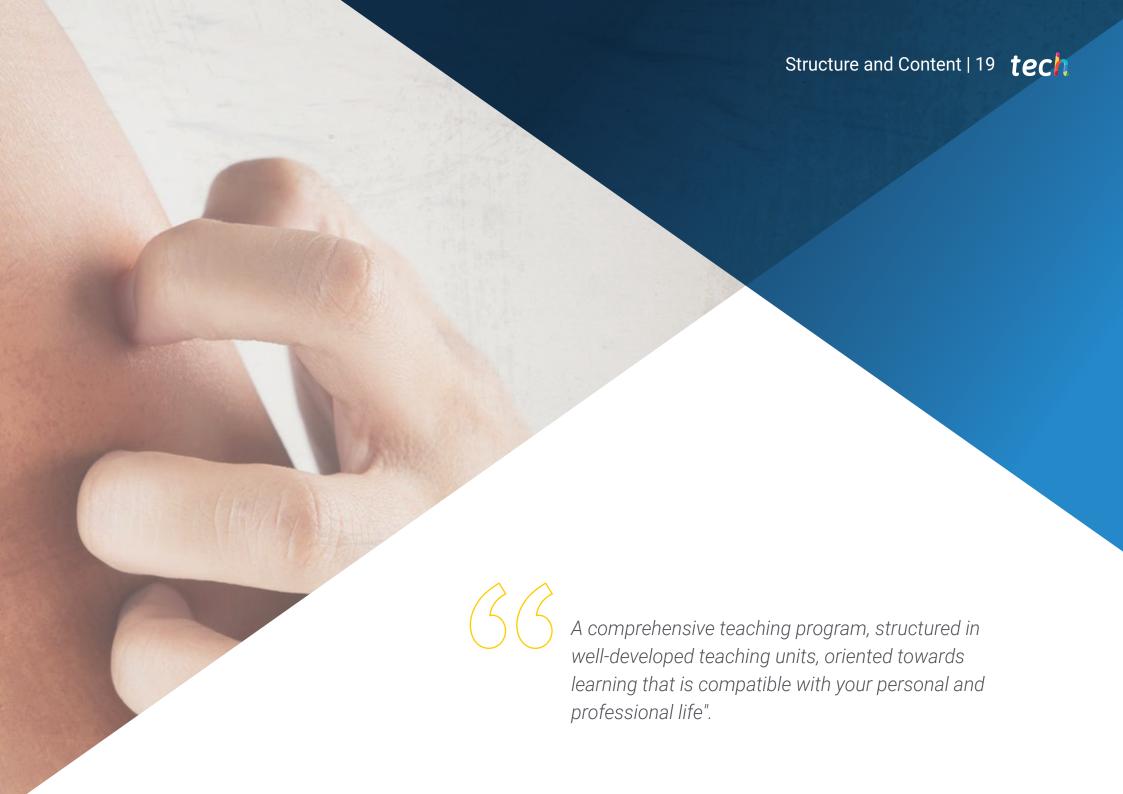
#### **Professors**

#### Dr. Arochena González, Lourdes

- Attending Physician of the Allergology Department at Jiménez Díaz Foundation.
- b Member of the Multidisciplinary Asthma Unit at Jiménez Díaz Foundation.
- b Master's Degree: "Talent in Allergy" 2017 IE Business School, Madrid
- Member of the SEAIC Asthma Committee
- Member of EAACI, AAAAI, and ERS



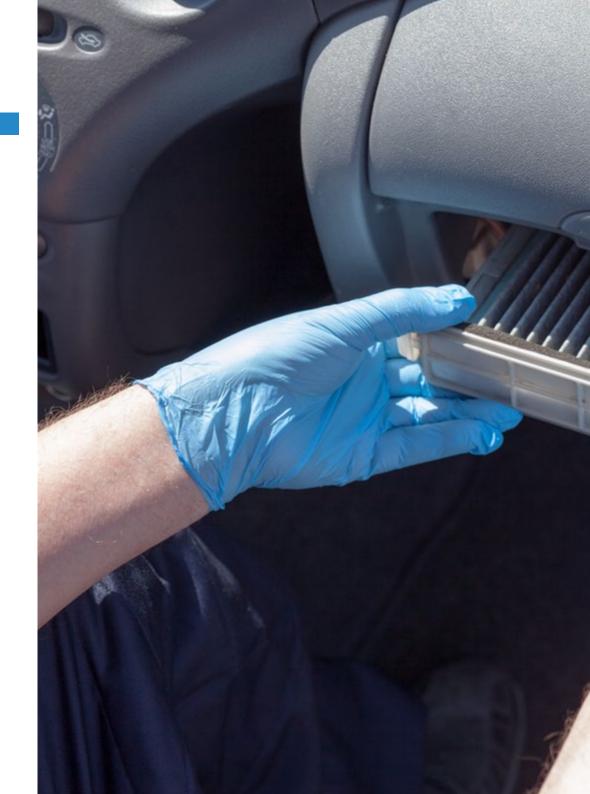




### tech 20 | Structure and Content

#### Module 1. Diagnostic Techniques for Allergic Diseases

- 1.1. General Aspects of the Diagnosis of Allergic Diseases
  - 1.1.1. Basic Criteria
- 1.2. In-Vivo Diagnostic Methods of Allergic Diseases: Prick Test. Epicutaneous Tests.
  Oral Provocation Tests
- 1.3. In-Vitro Methods of Allergic Diseases. Classification and Description
- 1.4. Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Pollens
- 1.5. Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Mites and Fungi
  - 1.5.1. Diagnostic Techniques
- 1.6. Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Animals.
  - 1.6.1. Diagnostic Techniques
- 1.7. Molecular and Component-Based Diagnosis in Food Allergy
- 1.8. Molecular and Component-Based Diagnosis in Vespid Allergy
- 1.9. Basotest in the Diagnosis of Allergic Diseases
- 1.10. Induced Sputum in the Diagnosis of Respiratory Allergic Diseases
- 1.11. Apparatus in the Diagnosis of Allergic Diseases
- 1.12. Diagnosis of Comorbidities of Allergic Diseases: Obesity, Gastroesophageal Reflux Disease, and Sleep Disorders

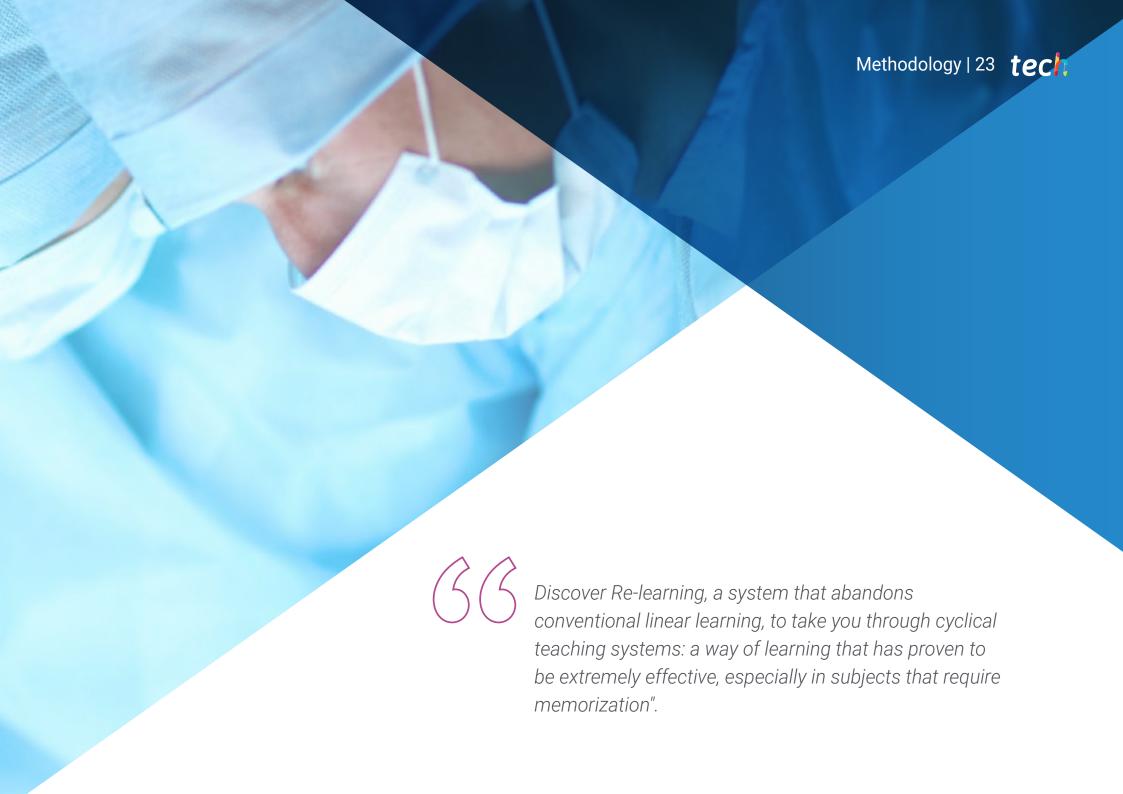




Developments in immunology in the field of allergology, in a high intensity educational course in Diagnostic Techniques in Allergic Diseases".







### tech 24 | Methodology

#### At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you 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 potential 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 professional medical 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:

- Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
- 2. The learning process has a clear focus on 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.
- 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.

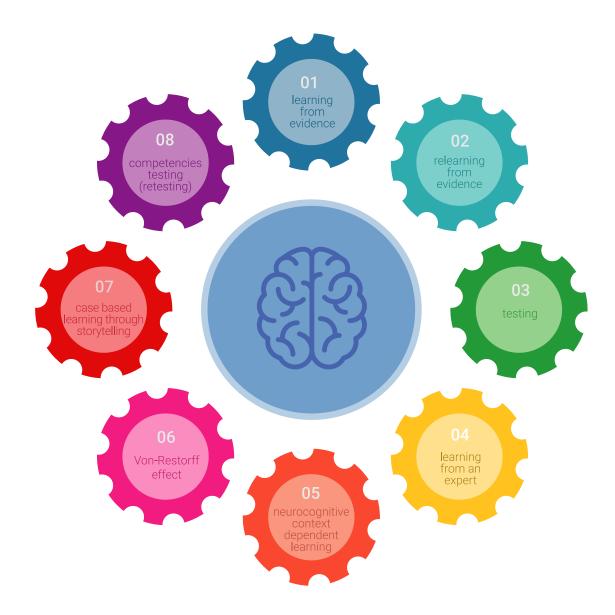


#### **Re-Learning Methodology**

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

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



### Metodology | 27 tech

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians 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.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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

In this program you will have access to the best educational material, prepared with you in mind:



#### **Study Material**

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

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### **Latest Techniques and Procedures on Video**

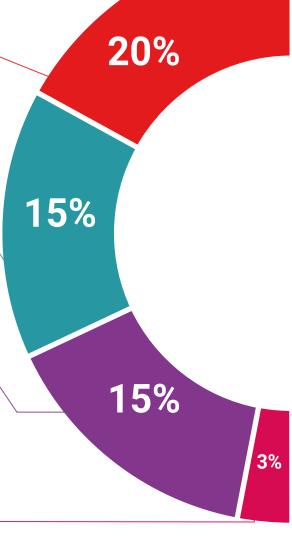
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

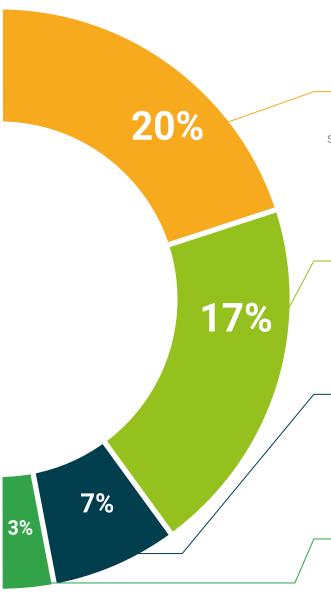
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





#### **Additional Reading**

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.



#### **Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Re-Testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your 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 our future difficult decisions.

#### **Quick Action Guides**

rksheets or progress in

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.





### tech 32 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Diagnostic Techniques in Allergic Diseases** 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 Diagnostic Techniques in Allergic Diseases

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



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

### Postgraduate Certificate in Diagnostic Techniques in Allergic Diseases

This is a program of 180 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.

health

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global
university

## Postgraduate Certificate

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