



# Postgraduate Certificate

# Introduction to Allergology

» Modality: online

» Duration: 2 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/medicine/postgraduate-certificate/introduction-allergology

# Index

> 06 Certificate

> > p. 28

# 01 Introduction

The concepts of allergology have been updated in recent decades. Progress in the approach to this group of pathologies has included new procedures and new drugs that sometimes coexist with the traditional ones. Updating the knowledge of professionals in this field has become a permanent necessity. This intensive course offers you the most efficient way to achieve it in a high-level specialization.



# 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 Introduction to Allergology** offers you the advantages of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems.
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- Communication with the teacher and individual reflection work
- Availability of content from any fixed or portable device with
- internet connection
- Complementary documentation banks permanently available, even after the Postgraduate Certificate



Get updated in one of the most in-demand specialties, with 30-40% of the world's population affected by allergies".

# Introduction | 07 tech



With a methodological design based on proven teaching techniques, this Postgraduate Certificate will take you through different teaching approaches to allow you to learn in a dynamic and effective way"

Our teaching staff is composed of medical professionals, practising specialists. In this way we ensure that we deliver the educational update we are aiming for. A multidisciplinary staff of trained and experienced professionals in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will bring to the Postgraduate Certificate 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 Postgraduate Certificate in Introduction to Allergology. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for your specialization.

The design of this program is based on Problem-Based Learning: an approach that views 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 facing the scenario you are learning at that moment. 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
- Recognize new forms of allergic disease conditions
- Review the latest international practices in allergology
- Learn the new international lines of research in allergology
- Become familiar with new approaches
- Recognize 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"





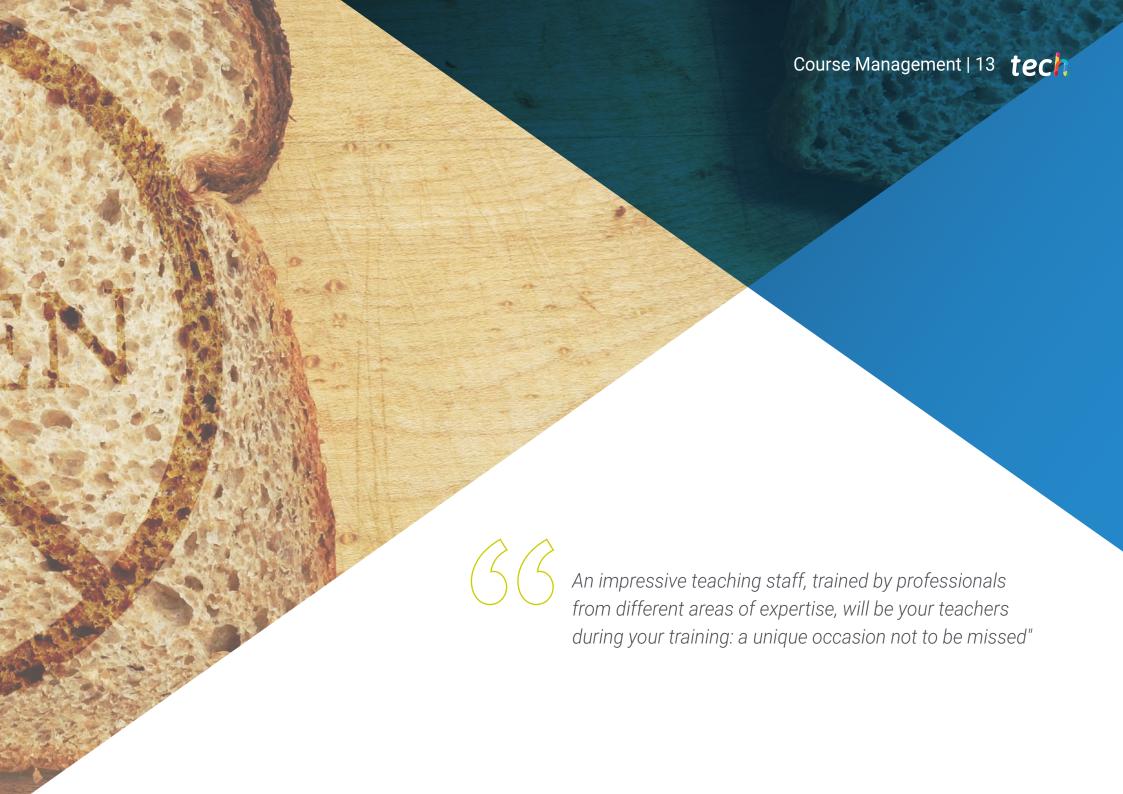


# **Specific Objectives**

- Get up to date on the basic concepts of traditional allergic diseases.
- Learn about the most recent concepts of allergology in relation to new drugs.
- Learn the basic criteria of the key immunological reactions: skin, respiratory, and food.
- Develop skills in the use and understanding of the immunological mass mechanisms of allergic diseases: effector cells, immunoglobulins, interleukin, cytokines and complements
- Knowledge of the current numerical data on incidence and prevalence of allergic pathologies.







# tech 14 | 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

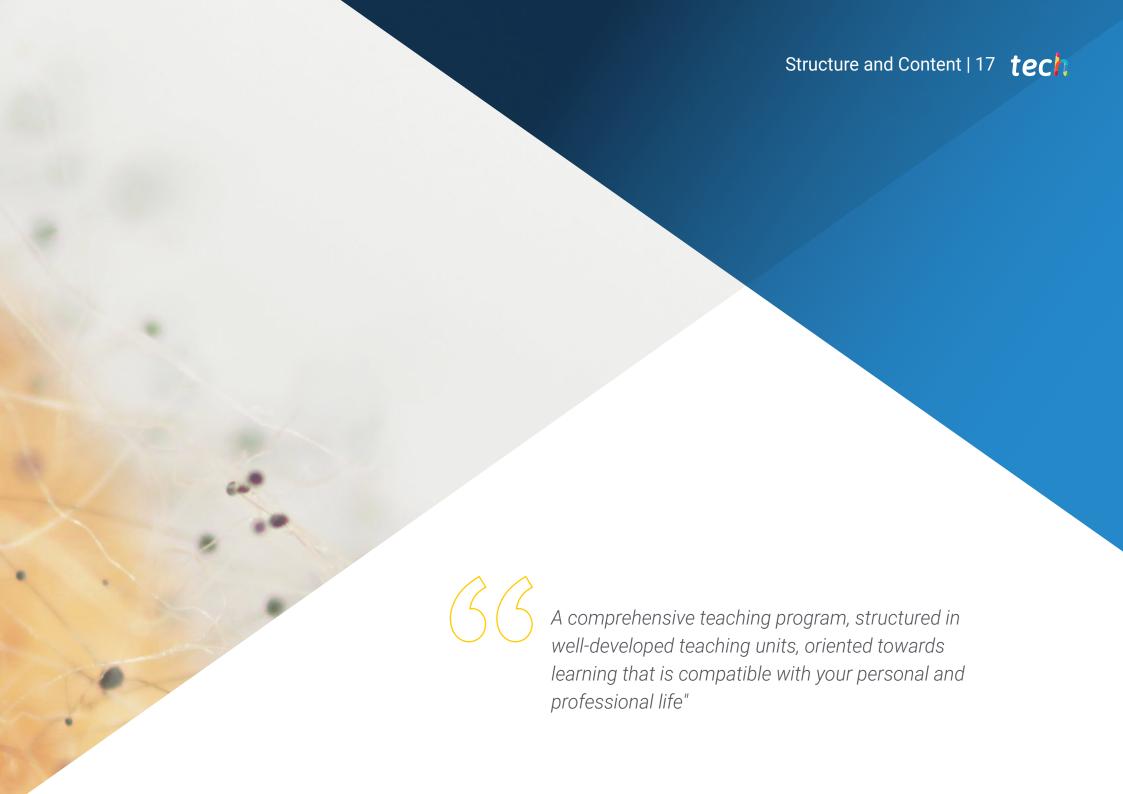
### **Professors**

### Dr. Acevedo Caballero, Nathalie del R.

- Medical Immunologist, Institute of Immunological Research, Cartagena, Colombia.
- PhD in Medical Sciences, Karolinska Institute







# tech 18 | Structure and Content

### Module 1. Introduction to Allergology

- 1.1. Introduction. Terminology. Atopy and allergy.
  - 1.1.1. Terminology.
  - 1.1.2. Atopy
  - 1.1.3. Allergy
- 1.2. History of Allergies
  - 1.2.1. Origins and Development
- 1.3. Prevalence of allergic diseases. Prevalence of allergic diseases
  - 1.3.1. Prevalence
  - 1.3.2. Pharmacoeconomics
- 1.4. Immunological basis of allergic diseases. Classification of Hypersensitivity Reactions
  - 1.4.1. Immunological Basis of Allergic Diseases
  - 1.4.2. Classification of Hypersensitivity Reactions
  - 1.4.3. Cells and Molecules Involved in the Immediate Hypersensitivity Immune Response
- 1.5. Pathophysiology of an Allergic Reaction. Immunological basis of allergic diseases
- 1.6. Effector Cells Involved in Allergic Reactions
  - 1.6.1. Effector Cells Involved in Allergic Reactions
  - 1.6.2. Basophils, Mast Cells, Cytokines, Eosinophils, Allergy Mediators
- 1.7. Immunoglobulin E: Characteristics. Mechanisms of IgE Synthesis Regulation. High and Low-Affinity IgE Receptors
- 1.8. The Complement System Components. Activation and Regulation Pathways
- 1.9. Immunological Mechanisms Involved in Allergic Dermatoses
- 1.10. Digestive Tract Immunology Mechanisms of Immunological Tolerance Allergic Reactions to Food Adverse Reactions to Additives and Preservatives







Developments in immunology in the field of allergology, in a high educational intensity Postgraduate Certificate"





# 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:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate 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 trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical 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.

# tech 26 | Methodology

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 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 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 30 | Certificate

This **Postgraduate Certificate in Introduction to Allergology** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery.

The certificate 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 Introduction to Allergology

Official No of Hours: 150 hours.



health

Guarantee

Lechnological
university

# Postgraduate Certificate Introduction to Allergology

- » Modality: online
- » Duration: 2 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

