



## Professional Master's Degree

## Allergology

» Modality: online

» Duration: 12 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/medicine/professional-master-degree/master-allergology

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## 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 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 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 program, 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 interleukin.

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 **Professional Master's Degree in 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
- $\bullet\,$  Supplementary documentation databases are permanently available, even after the course



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



Update the classic concepts of the disease and incorporate the use of new drugs and treatments into your practice"

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 team of qualified physicians with experience 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 program.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this Master's Degree. 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.

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 learning: 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.

With a methodological design based on proven teaching techniques, this master's degree will take you through different teaching approaches to allow you to learn in a dynamic and effective way.





**Objectives** Our goal is to prepare highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping medical professionals reach a much higher level of expertise and control. A goal that, in just six months, you will be able to achieve with a highly intensive and precise course.



If your goal is to take a step toward achieving the highest medical quality, this Professional Master's Degree is for you: a program that aspires to excellence"

## 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





#### Module 1. Introduction to Allergology

- 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

#### Module 2. Allergens. Panallergens and their Impact on Allergic Diseases

- Know and classify allergens
- Get up to date on the concept of a panallergen and its impact on allergic diseases
- Accurately describe respiratory, food, animal, and hymenoptera allergens
- Define and describe the main pollen-food syndromes

#### Module 3. Diagnostic Techniques for Allergic Diseases

- Address diagnostic techniques for traditional allergic diseases
- Learn the characteristics of component diagnostics
- 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
- Know and apply modern in-vitro diagnostic techniques in clinical practice: Componentbased diagnosis in allergic diseases due to different allergens, Basotest, Induced Sputum.
- Understand and define the most commonly used equipment in the allergic specialty, from spirometry, rhinomanometry, acoustic rhinometry, measurement of exhaled nitric oxide, etc.

#### Module 4. Main Respiratory Allergic Diseases. Epidemiology, Diagnosis, and Treatment

- Review the allergic epidemiology of the 20th century
- Review the main respiratory allergic pathologies
- Develop up-to-date diagnostic and treatment techniques
- Learn how to interact with other involved specialties
- Define how modern Multidisciplinary Units operate
- Differential diagnosis and diagnostic techniques of the main respiratory allergic diseases: Rhinitis, Asthma, Polyposis
- Differential diagnosis of other allergic respiratory diseases such as Eosinophilic Bronchitis and Allergic Bronchopulmonary Assylosis
- Know doses and indications of the different biological formats for treating allergic respiratory diseases

#### Module 5. Allergy-Related Skin Diseases

- Get up to date on new practice guidelines for skin diseases related to the field of allergology
- · Learn about new biological drugs for skin conditions
- Understand and know how to diagnose the main allergic skin conditions: dermatitis, urticaria, edema
- Know both the traditional and modern treatments for these diseases
- Know the indications and dosage of biological formats for treating allergic skin diseases

## tech 12 | Objectives

#### Module 6. Immunodeficiencies in Allergology: Diagnostics and Treatments

- Explore immunodeficiencies related to allergology
- Study advanced diagnostic procedures in this line of work
- Study updated treatments in this area
- Know the classification and definition of immunodeficiencies in adults and the child population
- Know the differential diagnosis of autoimmune diseases in allergology
- Define and treat mastocytosis
- Understand the relevance of alpha 1 antitrypsin deficiency in allergic diseases

#### Module 7. Food allergies. Epidemiology, Diagnosis, and Treatment

- Study the most prevalent food allergies today
- Analyze the main forms of food allergy in pediatrics
- Learn how to use the main techniques for diagnosing and treating food allergies
- Understand the different food groups, their classification and taxonomy
- Understand the different molecular profiles of different food allergies: vegetables, fish and seafood, fruits and nuts, legumes
- Diagnose and treat the most prevalent food allergies in children: Milk and egg allergy and fish allergy

#### Module 8. Main Pharmacological Groups Causing Allergic Pathology

- Training in drug allergy pathologies
- Review the main pharmacological groups causing allergic pathology
- Learn the classification of the different pharmacological groups; antibiotics, NSAIDs, chemotherapeutic contrast media, proton pump inhibitors
- Know the main differences between idiosyncratic and allergic reactions
- Know the diagnostic protocols for diagnosing allergy to beta-lactams and NSAIDs

#### Module 9. Allergy to Hymenoptera. Classification and Taxonomy

- Hymenoptera allergy analysis
- Classify and taxonomize Hymenoptera according to the patient's geographical location
- Know other types of insects of relevance in terms of their impact in different parts of the planet
- Know the classification and taxonomy of the different vespids
- Learn about diagnostic tests for hymenoptera allergy
- · Become familiar with international guidelines for treating hymenoptera allergy

#### Module 10. Future Allergology. Research. Food Immunotherapy and Drug Desensitization

- Discuss future approaches to allergology based on the latest advances in research
- Learn about the development of immunotherapy with food
- Learn how drug desensitization works
- Knowledge of the different immunotherapy methods, routes, and guidelines
- Understand the current use of immunotherapy with food
- Know the different guidelines for desensitization with drugs
- · Learn about future lines of research in the field of Allergology

## Module 11. The Author's Professional Experience in the Diagnosis and Treatment of Allergic Diseases

- Analysis of allergic diseases in the occupational setting
- Development of new techniques for diagnosing and treating these allergic pathologies
- Define the concept of occupational respiratory disease
- Distinguish between asthma exacerbated by work and asthma caused by work
- Know the diagnostic methodology of occupational respiratory disease: specific bronchial provocations, provocation chamber, etc.
- Know the main high and low molecular weight occupational agents
- Differential diagnosis between the different occupational respiratory pathologies: Rhinitis, asthma, eosinophilic bronchitis, pneumonitis, etc.

#### Module 12. Miscellaneous

- Learn the basics of telemedicine and social networks in the field of allergology
- Learn about new developmental drugs in allergology
- Reflect on associationism in the field of allergology



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





### tech 16 | Skills



#### **General Skills**

- Correctly define allergology in the 21st of century
- Recognize new manifestations of allergic diseases
- Include the new lines of work in treatment protocols
- Carry out innovative approaches based on the latest advances
- Give adequate importance to allergic pathologies in the context of primary care
- Carry out a prophylactic intervention in terms of allergen recognition and avoidance





### **Specific Skills**

- Possess a broad compendium of up-to-date knowledge regarding the new vision of allergology and the most current drugs
- Recognize the basic criteria for key immunologic reactions
- Be proficient in immunological mass mechanisms
- Recognize, classify, and describe the different allergens
- Recognize, classify, and define the main pollen-food syndromes
- Diagnose the different allergic pathologies by means of different techniques, differentiating the suitability of each of them in each case: induced sputum, in vivo techniques (Prick Test, Prick-Prick, Epicutaneous Tests, Basotest, Induced Sputum)
- Diagnose the different comorbidities of allergic diseases: gastroesophageal reflux, sleep disorders...
- Diagnose and intervene in allergic respiratory diseases with classical and new ways of intervention
- Organize and carry out the interaction with other specialties and multidisciplinary units
- Work effectively with the appropriate diagnostic techniques in rhinitis, asthma, polyposis, eosinophilic bronchitis, bronchopulmonary ascites, allergic bronchitis
- Be able to create a treatment protocol and master the dosages and indications of traditional and state-of-the-art drugs in allergic respiratory diseases
- Diagnose and treat allergic skin diseases, with the most traditional and the most advanced treatments

- Know how to use new drugs in skin conditions: dermatitis, urticaria, edema
- Create a treatment protocol and master the dosages and indications of traditional and state-of-the-art drugs in allergic skin diseases
- In-depth knowledge of immunodeficiencies related to allergic disease in adults and children
- Recognize the different autoimmune diseases related to allergic reaction
- Make an efficient differential diagnosis of these diseases in children and adults
- Know how to determine the presence of mastocytosis and alpha 1 antitrypsin deficiency, and create the appropriate
- · Define the appropriate treatment with new and traditional drugs
- Recognize the most common food allergies and their molecular profiles according to groups: vegetables, fish and seafood, fruits and nuts, legumes
- Perform a proper diagnosis of food allergies
- Know how to treat these types of allergies properly
- Diagnose and treat the most prevalent food allergies in children: milk, egg, fish
- Recognize the most common drugs in allergic pathology, classified in groups
- Know how to differentiate between idiosyncratic and allergic differences
- Use the different diagnostic protocols for allergies to Beta Lactams and Aines
- Have an in-depth knowledge of hymenopteran allergy, its prevalence and the different types
  of insects according to geographical location

- Master the diagnostic techniques for hymenoptera allergy and the international guidelines for its treatment
- Have current data on the future of allergology: immunotherapy with food, desensitization using drugs
- Be qualified to use immunotherapy techniques with food
- Be qualified to use drug desensitization trends.
- Recognize occupational allergic diseases and occupational agents of high and low molecular weight
- Use modern techniques for diagnosis and treatment of these diseases and to perform a complete differential diagnosis
- Differentiate between work-exacerbated and work-induced asthma
- Apply the diagnostic methodology of occupational respiratory disease: bronchial provocations, provocation chamber
- Use telemedicine and social networks in the field of allergology
- Use new drugs in allergology
- Know the advantages of associationism in the field of allergology





## tech 20 | Course Management

#### Management



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

- Assistant Physician, Allergology Unit, Jiménez Díaz Foundation IIS CIBERES (Respiratory Diseases)
- 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

#### Dr. Arochena González, Lourdes

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

#### Dr. Gómez Cardeñosa, Aída

- Attending Physician of the Allergy Department at Jiménez Díaz Foundation
- Member of the multidisciplinary asthma unit. Jiménez Díaz Foundation
- Member of the Spanish Society of Allergology (SEAIC)
- Member of the Social Networking Commission (SEAIC)
- Member of the Cutaneous Allergy Committee (SEAIC)
- Member of EAACI
- Collaborating reviser for the Journal of Investigational Allergology and Clinical Immunology

#### Dr. Jara, Pamela Fracesca

- Member of the Medical Association of Rhineland-Westphalia, Germany
- · Allergy Physician trained at the Jiménez Díaz Foundation, Spain
- Surgeon from San Agustín National University, Peru
- PhD in Medicine and Surgery from the Autonomous University of Madrid, Spain
- Member of the European Academy of Allergy and Clinical Immunology. EAACI
- Member of the Society of Allergy and Clinical Immunology of Madrid-Castilla la Mancha. SMCLM

#### Dr. Dávila Fernández, Galicia

- Assistant Physician of the Allergology Department of the Henares University Hospital (Madrid)
- Coordinator of Training and Teaching at the Henares University Hospital
- Associate Professor (PAC) of the Francisco de Vitoria University of Madrid
- Member of the Spanish Society of Allergology and Clinical Immunology (SEAIC)
- Member of the SEAIC Drug Allergy Committee

#### Dr. Rojas Pérez-Ezquerra, Patricia

- Allergist. Gregorio Marañón General University Hospital
- Member of the Spanish Allergology Society (SEAIC)
- Member of the Drug Allergy Committee, Spanish Society of Allergology (SEAIC)
- Master's Degree in Clinical Management, Medical, and Healthcare Management.
   Cardenal Herrera University

#### Dr. Seoane Reula, Elena

- Allergist. Doce de Octubre Hospital. Madrid
- Immunologist. Gregorio Marañon Hospital. Madrid
- Master's degree in Pediatrics: San Jorge University. Zaragoza
- Doctor of Medicine and Surgery. Outstanding Award. Cádiz University
- Coordinator of the Children's Immuno-Allergy Society. Gregorio Marañon Hospital.
   Madrid. Spain
- Medical advisor of the Spanish Association of Primary Immune Deficits. (AEDIP)
- President of the Immunology Committee of the Spanish Society of Allergology (SEAIC)
- Member of the Clinical Immunology Working Group of the Spanish Society of Clinical Immunology and Pediatric Allergy (SEICAP)
- Member of the Clinical Immunology Group of the Spanish Society of Immunology (GISEI)
- Member of the European Society for Immunodeficiency Diseases (ESID)



### tech 24 | Structure and Content

#### Module 1. Introduction to Allergology

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



#### Module 2. Allergens. Panallergens and their Impact on Allergic Diseases

- 2.1. Allergens. Types. Structure. Characterization and Purification of Allergens Concept of Cross-Reactivity. Panallergens
- 2.2. Classification of the Main Environmental Allergens
- 2.3. Classification and Taxonomy of the Main Food Allergens
- 2.4. Classification and Description of the Main Skin Allergens
- 2.5. Allergic Reactions to Latex. Cross Allergenicity with Food. Latex Allergy Prevention Clinic
- 2.6. Description of Pollen-Food Syndromes: Classification, Description, Prevalence
- 2.7. Classification and Description of the Main Allergic Diseases of Drug Origin
- 2.8. Classification, Description, and Taxonomy of Animal Allergens
- 2.9. Classification, Description, and Taxonomy of Vespid Allergens

#### Module 3. Diagnostic Techniques for Allergic Diseases

- 3.1. General Aspects of the Diagnosis of Allergic Diseases
  - 3.1.1. Basic Criteria
- 3.2. In-Vivo Diagnostic Methods of Allergic Diseases: Prick Test. Epicutaneous Tests. Oral Provocation Tests
- 3.3. In-Vitro Methods of Allergic Diseases. Classification and Description
- 3.4. Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Pollens
- Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Mites and Fungi
  - 3.5.1. Diagnostic Techniques
- 3.6. Molecular Diagnostics by Components in Pneumoallergen Allergic Respiratory Diseases: Animals
  - 3.6.1. Diagnostic Techniques
- 3.7. Molecular and Component-Based Diagnosis in Food Allergy
- 3.8. Molecular and Component-Based Diagnosis in Vespid Allergy
- 3.9. Basotest in the Diagnosis of Allergic Diseases
- 3.10. Induced Sputum in the Diagnosis of Respiratory Allergic Diseases
- 3.11. Apparatus in the Diagnosis of Allergic Diseases
- 3.12. Diagnosis of Comorbidities of Allergic Diseases: Obesity, Gastroesophageal Reflux Disease, and Sleep Disorders

## **Module 4**. Main Respiratory Allergic Diseases. Epidemiology, Diagnosis, and Treatment

- 4.1. Allergic Rhinoconjunctivitis
- 4.2. Nasosinusal Polyposis
- 4.3. Asthma Definition and Classification
- 4.4. Asthma
  - 4.4.1. Diagnosis Treatment
- 4.5. ACOS Mixed Phenotype
- 4.6. Biological Drugs in the Treatment of Asthma
- 4.7. Thermoplasty in Asthma Treatment
- 4.8. Eosinophilic Bronchitis
- 4.9. Allergic Bronchopulmonary Aspergillosis
  - 4.9.1. Extrinsic Allergic Alveolitis
- 4.10. Alpha 1 Antitrypsin Deficiency and Allergic Respiratory Pathology

#### Module 5. Allergy-Related Skin Diseases

- 5.1. Atopic Dermatitis
- 5.2. Chronic Spontaneous Urticaria
- 5.3. Angioedema
- 5.4. Urticarial-Vasculitis
- 5.5. Alpha 1 Antitrypsin Deficiency and Skin Diseases in Allergology
- 5.6. Biological Drugs in the Treatment of Atopic Dermatitis
- 5.7. Biological Drugs in the Treatment of Chronic Urticaria
- 5.8. Biological Drugs in the Treatment of Angioedema

### tech 26 | Structure and Content

#### Module 6. Immunodeficiencies in Allergology: Diagnostics and Treatments

- 6.1. Primary Immunodeficiencies in Pediatric Patients
- 6.2. Primary Immunodeficiencies in Adult Patients
- 6.3. Organ-Specific Autoimmune Diseases
- 6.4. Systemic Autoimmune Diseases
- 6.5. Alpha 1 Antitrypsin Deficiency
- 6.6. Cutaneous Mastocytosis
- 6.7. Systematic Mastocytosis
- 6.8. Celiac Disease

#### Module 7. Food allergies. Epidemiology, Diagnosis, and Treatment

- 7.1. Food Allergy. Classification and Taxonomy
- 7.2. Milk Allergy
- 7.3. Egg Allergy
- 7.4. Fish Allergy
- 7.5. Seafood Allergy
- 7.6. Fruit and Nut Allergy
- 7.7. Legume Allergy
- 7.8. Allergy to Other Plant-Based Foods
- 7.9. Gluten Allergy
- 7.10. Allergy to Additives and Preservatives

#### Module 8. Main Pharmacological Groups Causing Allergic Pathology

- 8.1. Adverse Reactions to Medications. Immune System Adverse Reactions
- 8.2. Allergy to Beta-Lactam Antibiotics
- 8.3. Allergy to Quinolone Group Antibiotics
- 8.4. Allergy to Sulfonamide Group Antibiotics
- 8.5. Allergy to Non-Steroidal Anti-Inflammatory Drugs
- 8.6. Allergy to Chemotherapy Drugs
- 8.7. Allergy to Anticoagulants
- 8.8. Proton Pump Inhibitor Allergy
- 8.9. Allergy to Contrast Media
- 8.10. Pseudoallergic and Idiosyncratic Reactions to Drugs

#### Module 9. Allergy to Hymenoptera. Classification and Taxonomy

- 9.1. Classification and Taxonomy
- 9.2. Epidemiology and Prevalence
- 9.3. Geographical Location of the Different Allergologically Relevant Hymenoptera
- 9.4. Systemic Allergic Reactions due to Hymenoptera: Bees
- 9.5. Systemic Allergic Reactions due to Hymenoptera. Wasps
- 9.6. Diagnosis of Allergic Reactions to Hymenoptera
- 9.7. Prophylaxis of Reactions to Hymenoptera Venoms
- 9.8. Treatment of Hymenoptera Allergy
- 9.9. Allergy to Hymenoptera Venom and Mastocytosis
- 9.10. Other Insect Bites

## **Module 10.** Future Allergology. Research. Food Immunotherapy and Drug Desensitization

- 10.1. Research and Allergy
- 10.2. Big Data in Allergy Diseases
- 10.3. Introduction to Immunotherapy of Allergic Diseases
- 10.4. Immunotherapy of Allergic Rhinitis and Asthma
- 10.5. Food Allergy Immunotherapy
- 10.6. Desensitization for the Treatment of Drug Allergy
- 10.7. Peptide immunotherapy
- 10.8. Immunotherapy and the Use of Biological Drugs



### Structure and Content | 27 tech

## **Module 11.** The Author's Professional Experience in the Diagnosis and Treatment of Allergic Diseases

- 11.1. Classification of Occupational Respiratory Diseases
- 11.2. Occupational Asthma, Diagnosis
- 11.3. Diagnostic Tests in Occupational Asthma: Skin Tests, Routine Respiratory Tests
- 11.4. Provocation Chambers in Occupational Asthma Diagnostics
- 11.5. Use of Induced Sputum in the Diagnosis of Occupational Asthma
- 11.6. High Molecular Weight Agents
- 11.7. Low Molecular Weight Agents
- 11.8. Occupational Eosinophilic Bronchitis and Occupational Allergic Pneumonitis
- 11.9. Occupational Dermatoses Classification and Description
- 11.10. Diagnosis of Occupational Dermatoses

#### Module 12. Miscellaneous

- 12.1. Anaphylaxis
- 12.2. Telemedicine and Social Media in the Field of Allergology
- 12.3. Pharmaceuticals in Development in the Field of Allergology
- 12.4. Associationism in Allergology





## tech 30 | 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.



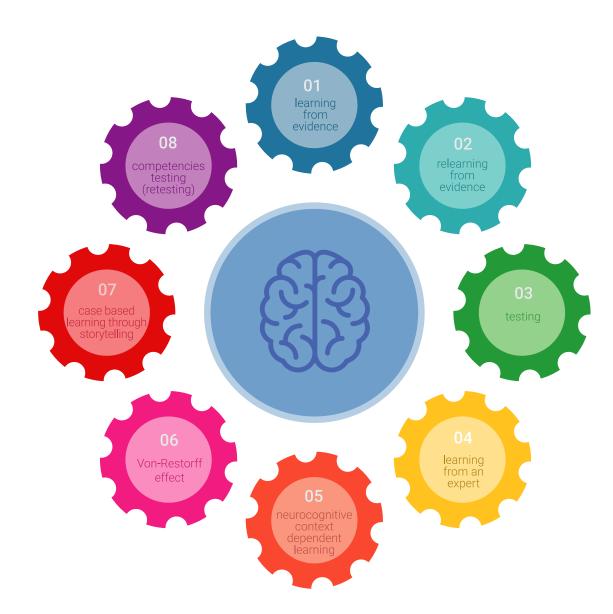


#### Relearning Methodology

At TECH we enhance the 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-the-art software to facilitate immersive learning.



### Methodology | 33 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 34 | 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 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.



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

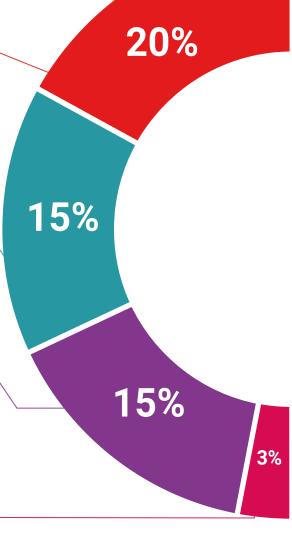
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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

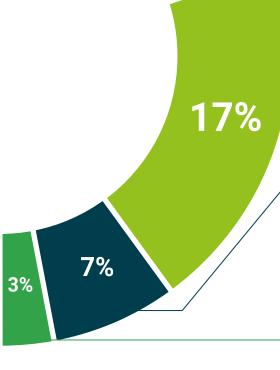
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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 38 | Certificate

This **Professional Master's Degree in Allergology** contains the most complete and updated scientific program on the market.

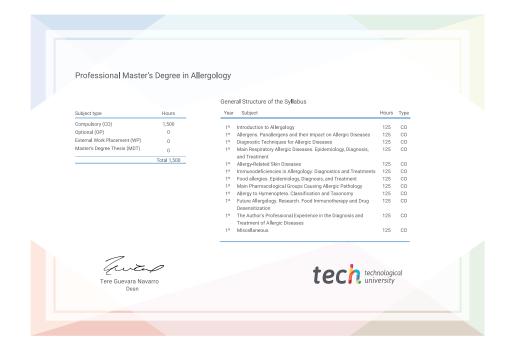
After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Professional Master's Degree in Allergology

Official N° of hours: 1,500 h.





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

tech universidad tecnológica



## **Professional Master's** Degree

## Allergology

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

