

Postgraduate Diploma

Assessment of Food and Drug Allergy in Children





Postgraduate Diploma Assessment of Food and Drug Allergy in Children

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

Official N° of hours: 450 h.

Website: www.techtute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-assessment-food-drug-allergy-children

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01

Introduction

It is essential for any pediatric specialist to know in detail the latest guidelines and strategies in the medical sector for early diagnosis of food and drug allergies in pediatric patients. For this reason, these professionals must be continuously investigating the research that is carried out every year in the sector, in order to be able to implement the most appropriate management and the most effective treatments in their practice. Thanks to this 100% online program, the graduate will have access to the most complete syllabus on these reactions of the immune system, from the study of the possible causes to the most appropriate drugs to treat them. In addition, they will be supported by a teaching team composed of experts in Pediatrics and Allergology, who will guide them during the course of this educational experience.





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TECH presents this Postgraduate Diploma as a unique opportunity to perfect your medical skills in the management of children's patients with food and drug allergies under the guidance of prestigious professionals in the field of Pediatrics"

Food allergies are one of the main reasons for consultation in pediatrics, while drug allergies, although much less frequent, precede them. This hypersensitivity in infants can present itself in different ways, the most frequent being: cow's milk protein, egg, nuts, seeds, shellfish, fish and legumes. In the case of drugs, beta-lactams, NSAIDs, antibiotics and anesthetics are those that usually cause more cases of reaction.

The symptomatological picture that the patient may present depends on the response of the immune system and its degree of sensitization, however, it influences the infant's quality of life. In this sense, the role of the specialist in the early diagnosis and in the comprehensive approach to this pathology based on the latest developments in the sector is essential, which is why TECH and its team of experts in Pediatrics and Allergology have considered it necessary to develop this Postgraduate Diploma in the Assessment of Food and Drug Allergy in Children. In this way, the physician will be able to get up to date with the most effective and efficient management and treatment techniques of the present, being able to update their personal vademecum in just 6 months.

It is presented as a 100% online program characterized by the possibility of access 24 hours a day and from any device with internet connection, dozens of hours of high-quality supplementary material to contextualize the content and delve into the most interesting sections and the best and most innovative syllabus on the market. For all these reasons, this program is the best opportunity to perfect your medical skills in a way that is fully compatible with your working life.

This **Postgraduate Diploma in Assessment of Food and Drug Allergy in Children** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Pediatrics and Allergology
- ◆ 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
- ◆ Practical exercises where the self-assessment process can be carried out to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



You will be able to delve into the different mechanisms of hypersensitivity to drugs and their clinical manifestations”

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You will have access to clinical cases of patients that present different symptomatological conditions, so that you can perfect your approach strategies and implement the latest protocols”

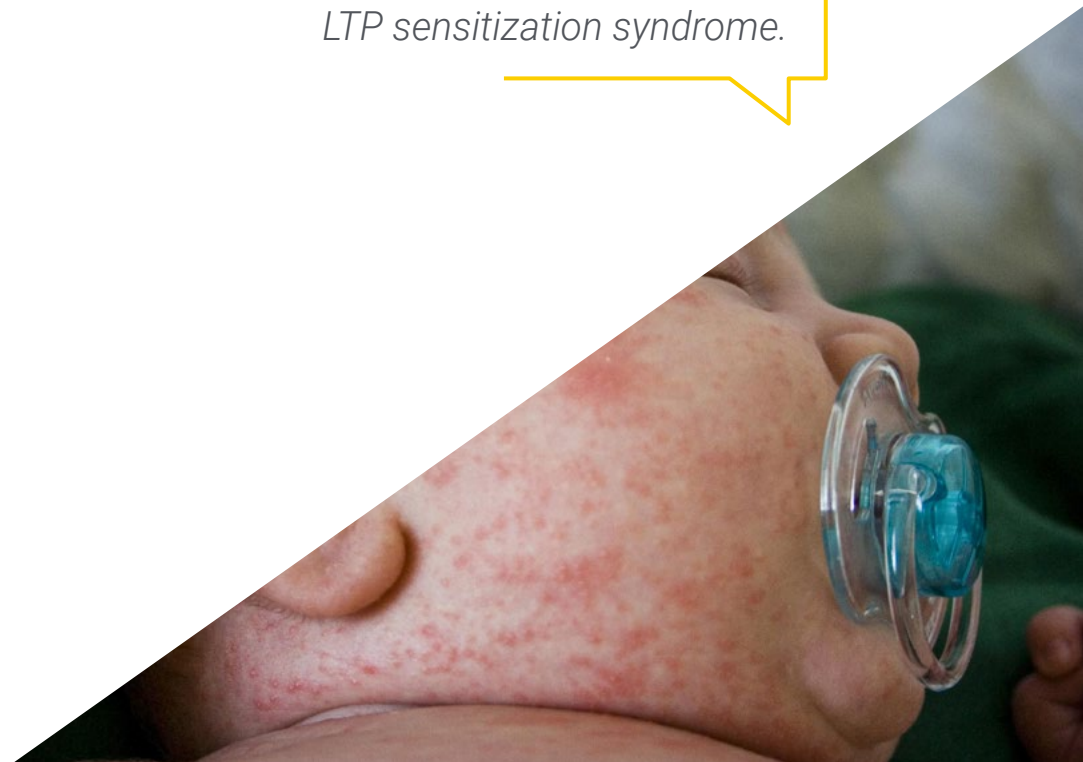
The program’s teaching staff includes professionals in the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

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

Know in detail the allergy to cephalosporin and cross-reactivity with penicillin derivatives.

This program will give you the keys to broaden your knowledge of the epidemiology, diagnosis and treatment of patients with LTP sensitization syndrome.



02

Objectives

TECH and its team of professionals in Pediatrics and Allergology have developed this Postgraduate Diploma so that the professional can update their knowledge in a comprehensive manner and balanced with their working life. For that reason, the objective of this qualification is to provide them with all the educational tools that will help them to fulfill this task in a complete and absolute way, positively influencing the development and improvement of their medical skills and competences.



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This qualification will help you achieve your highest goals in the assessment of pediatric food and drug allergy, making you an expert in as little as 6 months”



General Objectives

- ◆ Provide the graduate with all the necessary educational tools that will allow them to keep up to date with the latest developments in relation to the assessment of food and drug allergies in children
- ◆ Know in detail the new developments to carry out an exhaustive and complete approach to the etiological diagnosis in severe allergic reactions to drugs
- ◆ Delve into the knowledge of possible primary prevention measures in food allergy

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In the Virtual Classroom, you will find high-quality complementary material that will help you to contextualize the syllabus and to delve into those aspects in which you consider you need to place special emphasis”





Specific Objectives

Module 1. Food Allergy and the Most Frequent Food Allergens in the Pediatric Age Group

- ◆ Analyze how an oral food tolerance test is performed
- ◆ Delve into the indications for restrictive diets and active treatments for food allergy
- ◆ Get to know the pathways of sensitization and tolerance to food allergens
- ◆ Be able to comprehensively care for the patient with cow's milk protein allergy
- ◆ Be able to comprehensively care for the patient with egg allergy
- ◆ Get to know the common non-IgE-mediated food allergies of onset in infancy

Module 2. Other Allergens Causing Food Allergy in Childhood

- ◆ Gain knowledge about the prevalence of the different food allergies
- ◆ In-depth study of the characteristics of the different allergenic sources
- ◆ Get to know the natural history of food allergies in the pediatric age
- ◆ Gain knowledge about how to perform and interpret a diagnosis by components in nut and seed allergy
- ◆ Analyze the different patterns of sensitization to fruits and vegetables
- ◆ Know how to make a correct diagnosis of cereal allergy
- ◆ Identify possible adverse effects of some food additives, and differentiate them from allergic reactions
- ◆ Gain knowledge about the pathophysiology of eosinophilic esophagitis, the possible treatment routes and its relationship with food allergy in the pediatric age

Module 3. Drug Allergies

- ◆ Delve into the different mechanisms of hypersensitivity to drugs and their clinical manifestations
- ◆ Analyze how drugs act as allergens
- ◆ Gain knowledge about the technique and interpretation of in vivo drug tests: skin tests, intradermal tests, patch tests
- ◆ Analyze the main reasons for suspicion of drug allergy in pediatrics
- ◆ Know how to make a correct diagnosis of NSAID allergy
- ◆ Know the difference between allergy and idiosyncrasy, and their peculiarities
- ◆ Delve into the alternatives that exist in pediatrics as anti-inflammatory drugs in patients allergic to NSAIDs
- ◆ Know how to diagnose other antibiotics frequently used in pediatrics
- ◆ Delve into the bases and indications to perform desensitization to drugs, knowing the existing protocols for its realization and how to assess the risk to which we expose the patient

03

Course Management

For the development of the management and teaching staff of this Postgraduate Diploma, TECH has taken into account three factors: that they are specialists in Pediatric Medicine or Allergology, that they have extensive experience in the management of clinical cases of patients with food or drug allergies and that they are willing to commit to the work of updating the graduate. This is what has allowed this university to form a quality, professional and multidisciplinary faculty.



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If you have any questions during the course of this qualification, you will have the guarantee of being able to consult with the teaching staff"

Management



Dr. Troyano Rivas, Carmen

- ◆ Assistant Physician of the Pediatrics Department in the Allergy and Pediatric Pulmonology Section of the 12 de Octubre Hospital
- ◆ Collaborating Professor at the Complutense University of Madrid
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ MIR Specialist in Pediatrics and its specific areas at the at the Móstoles University Hospital

Professors

Dr. Cortés Álvarez, Nuria

- ◆ Pediatrician attached to the Pediatric Allergy Section of the Mútua Terrassa University Hospital
- ◆ Pediatrician on duty in Neonatology and Pediatrics at the Mútua Terrassa University Hospital
- ◆ Pediatrician in Pediatric Allergy consultation at the Children's Hospital of Barcelona
- ◆ Pediatrician
- ◆ D. in Pediatrics from the University of Barcelona
- ◆ Degree in Medicine and Surgery from the University of Barcelona
- ◆ Specialty in Pediatrics and its Specific Areas via MIR at the Maternal-Children's Hospital of Vall d'Hebron
- ◆ Master's Degree in Pediatric Immunology and Allergy at the Sant Joan de Déu Hospital

Dr. Quevedo Teruel, Sergio

- ◆ Specialist Pediatrician at Severo Ochoa Hospital
- ◆ PhD in Advances in Pediatrics from the Autonomous University in Madrid
- ◆ Doctorate in Social and Health Research at the Alfonso X El Sabio University
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid
- ◆ Master's Degree in Neonatology of the Seneo at the Catholic University of Valencia San Vicente Martir

Dr. García Magán, Carlos

- ◆ Specialist in Pediatrics at the Santiago de Compostela Hospital
- ◆ Degree in Medicine from the University of Santiago de Compostela
- ◆ Specialty in Pediatrics at the Santiago de Compostela Hospital
- ◆ Master's Degree in Genetics, Nutrition and Environmental Conditional Factors for Growth and Development
- ◆ Master's Degree in Neonatology

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

04

Structure and Content

This 100% online program has been designed following the strict quality criteria that define this university and that place it among the best in the world in terms of online educational offerings. In this way, the teaching team has proposed a syllabus based on the immediate current situation of the sector, which has been subsequently adapted to the *Relearning* methodology, in order to offer a qualification that does not involve the investment of long and tedious hours of study. In addition, the additional material and clinical cases that the graduate will find in the Virtual Classroom are the decisive factor that allow TECH to launch this qualification as a multidisciplinary and dynamic option to expand and update their knowledge.



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You will have access to the Virtual Classroom 24 hours a day and from any device with an internet connection, so you can take advantage of the quiet moments during your shifts to catch up"

Module 1. Food Allergy and the Most Frequent Food Allergens in the Pediatric Age Group

- 1.1. Approach to the Patient with Food Allergy
 - 1.1.1. Medical History
 - 1.1.2. Diagnostic Generalities
 - 1.1.2.1. Skin Tests
 - 1.1.2.2. Oral Tolerance Tests
 - 1.1.2.3. In Vitro Determination
 - 1.1.3. Treatment of Food Allergy
 - 1.1.3.1. Avoidance
 - 1.1.3.2. Active Treatments
- 1.2. Food Allergens Approach
 - 1.2.1. General Aspects
 - 1.2.2. Protein Stability
 - 1.2.3. Effects of Processing
 - 1.2.4. The Digestive System as an Immune Organ
- 1.3. Allergy to Cow's Milk Proteins
 - 1.3.1. Epidemiology
 - 1.3.2. Natural History
 - 1.3.3. Diagnosis
- 1.4. Avoidance Therapy in Cow's Milk Protein Allergy
 - 1.4.1. Hydrolyzed Formulas
 - 1.4.2. Vegetable Formulas
- 1.5. Oral Immunotherapy to Cow's Milk Proteins
 - 1.5.1. Indications
 - 1.5.2. Rapid Protocol
 - 1.5.3. Slow Protocol for Anaphylactic Patients
- 1.6. Egg Allergy
 - 1.6.1. Epidemiology
 - 1.6.2. Natural History
 - 1.6.3. Diagnosis
 - 1.6.4. Treatment





- 1.7. Oral Egg Immunotherapy
 - 1.7.1. Indications
 - 1.7.2. Tolerance Induction with Raw Egg
 - 1.7.3. Tolerance Induction with Boiled Egg
 - 1.7.4. Tolerance Induction with Baking
- 1.8. Non-IgE-Mediated Allergies
 - 1.8.1. Allergic Proctocolitis
 - 1.8.2. Food Protein-Induced Enterocolitis
 - 1.8.3. Food Protein Enteropathy
- 1.9. Nutritional Aspects of Food Allergy
- 1.10. Possible Interventions in the Primary Prevention of Cow's Milk and Egg Allergy

Module 2. Other Allergens Causing Food Allergy in Childhood

- 2.1. Nut and Seed Allergy
 - 2.1.1. Epidemiology
 - 2.1.2. Natural History
 - 2.1.3. Diagnosis
 - 2.1.4. Treatment
- 2.2. Allergy to Shellfish and Fish
 - 2.2.1. Shellfish Allergy
 - 2.2.1.1. Epidemiology
 - 2.2.1.2. Natural History
 - 2.2.1.3. Diagnosis
 - 2.2.1.4. Treatment
 - 2.2.2. Fish Allergy
 - 2.2.2.1. Epidemiology
 - 2.2.2.2. Natural History
 - 2.2.2.3. Diagnosis
 - 2.2.2.4. Treatment

- 2.3. Legume Allergy
 - 2.3.1. Epidemiology
 - 2.3.2. Natural History
 - 2.3.3. Diagnosis
 - 2.3.4. Treatment
- 2.4. Oral Allergy Syndrome
 - 2.4.1. Epidemiology
 - 2.4.2. Natural History
 - 2.4.3. Diagnosis
 - 2.4.4. Treatment
 - 2.4.5. Latex-Fruit Syndrome
- 2.5. LTP Sensitization Syndrome
 - 2.5.1. Epidemiology
 - 2.5.2. Natural History
 - 2.5.3. Diagnosis
 - 2.5.4. Treatment
- 2.6. Allergy to Cereals
 - 2.6.1. Epidemiology
 - 2.6.2. Natural History
 - 2.6.3. Diagnosis
 - 2.6.4. Treatment
- 2.7. Allergy to Food Additives and Preservatives
- 2.8. Induction of Tolerance to Other Foods
 - 2.8.1. Current Evidence
 - 2.8.2. New Forms of Immunotherapy with Food
- 2.9. Eosinophilic Esophagitis and its Relation to Food Allergy
- 2.10. Legislation on Allergen Labeling in the Food Industry BORRAR
 - 2.10.1. Recommendations to the Patient

Module 3. Drug Allergies

- 3.1. Adverse Reactions to Medications
 - 3.1.1. Classification of Hypersensitivity Reactions
 - 3.1.2. Drugs as Allergens
- 3.2. Diagnostic Approximation
 - 3.2.1. Peculiarities in the Child
 - 3.2.2. Medical History
- 3.3. Allergy to Beta-Lactams
 - 3.3.1. Penicillin. Chemical Structure and Classification
 - 3.3.2. Side Chain Allergens
 - 3.3.3. Allergens by Central Core
 - 3.3.4. Medical History
 - 3.3.5. Diagnosis
 - 3.3.6. Avoidance Recommendations According to Results
 - 3.3.7. Allergy to Cephalosporins and Cross-Reactivity with Penicillin Derivatives
- 3.4. Allergy to NSAIDs
 - 3.4.1. Classification of NSAIDs
 - 3.4.2. Types of Reactions to NSAIDs
 - 3.4.3. Diagnosis
 - 3.4.4. Avoidance Recommendations
 - 3.4.5. Possible Alternative Drugs in Children
- 3.5. Allergy to Other Antibiotics
 - 3.5.1. Macrolides
 - 3.5.2. Sulfamides
 - 3.5.3. Quinolones
 - 3.5.4. Aminoglycosides
 - 3.5.5. Glycopeptides

- 3.6. Allergy to Local Anesthetics and Perioperative Anaphylaxis
 - 3.6.1. Suspicion of Perioperative Allergic Reaction
 - 3.6.2. Tests to be Performed for Screening of the Responsible Drug
 - 3.6.3. Suspicion of Allergy to Local Anesthetics
- 3.7. Vaccine Allergy
 - 3.7.1. Types of Vaccine Reactions
 - 3.7.2. Vaccine Content
 - 3.7.3. Epidemiology of Vaccine Allergic Reactions
 - 3.7.4. Reactions that May Simulate Allergic Reaction After Vaccination
 - 3.7.5. Diagnosis of Allergy to Vaccines
 - 3.7.6. Vaccination Recommendations for those Allergic to any of the Following Components
- 3.8. Drug Desensitization
 - 3.8.1. Introduction
 - 3.8.2. Desensitization Mechanism
 - 3.8.3. Risk Evaluation
 - 3.8.4. Desensitization Protocols
- 3.9. Severe Manifestations of Non-IgE-Mediated Reactions to Drugs
 - 3.9.1. DRESS
 - 3.9.2. Lynch-Like Stevens-Johnson
 - 3.9.3. Acute Generalized Exanthematous Pustulosis
 - 3.9.4. Other Systemic Manifestations
- 3.10. Approach to Diagnosis in Severe Non-IgE Mediated Reactions



Enroll at the world's largest medical school and begin an educational experience that will mark a before and after in your pediatric career"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



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

At TECH we use the Case Method

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.

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

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

1. 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.



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.



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.



06

Certificate

This Postgraduate Diploma in Assessment of Food and Drug Allergy in Children guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



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Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

This **Postgraduate Diploma in Assessment of Food and Drug Allergy in Children** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Diploma in Assessment of Food and Drug Allergy in Children**

Official N° of Hours: **450 h.**



*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.

future

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education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online training

development languages

virtual classroom

tech technological
university

Postgraduate Diploma
Assessment of Food and
Drug Allergy in Children

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

Official N° of hours: 450 h.

Postgraduate Diploma

Assessment of Food and Drug Allergy in Children

