



Infectious Diseases in the Emergency Department of the Pediatric Patient for Nursing

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/nursing/postgraduate-diploma/infectious-diseases-emergency-department-pediatric-patient-nursing

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# tech 06 | Introduction

The nursing professional's performance in the Emergency Department is a complex task, as in other specialties, since the worker is outside a specialized unit. Thus, when you encounter cases of infectious pathologies, your intervention may be more complex than usual. For this reason, it is essential for these professionals to have educational tools that allow them to specialize in their main areas of activity.

In this case, TECH offers a complete training oriented to specialize nurses in Infectious Diseases that affect children and that, due to their complexity or because they have symptoms that can be harmful to children, end up being treated in Emergency Departments. Thus, the program includes the classic aspects in the management of infectious pathology by apparatus or organs, as well as new items essential for a correct management of Infectious Diseases in the current scenario of globalization of health. But, as it could not be otherwise, the main content is aimed at knowing the main Infectious Diseases that affect children in order to know the best way to take care of them. The fact is that the complexity that can be involved in urgent action in pediatric patients with infectious diseases requires a high level of specialization in order to train health care professionals.

On the other hand, being a 100% online training, the professional will have the ability to decide when and from where to study, without commitments or obligations, thus being able to combine their study time with the rest of their daily obligations.

This Postgraduate Diploma inInfectious Diseases in the Emergency Department of the Pediatric Patient for Nursing contains the most complete and up-to-date scientific program on the market. The most outstanding features of this program are:

- The development of clinical cases presented by experts in Infectious Diseases in the Pediatric Patient
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional
- Therapeutic developments on the intervention in Infectious Diseases
- Practical exercises where to carry out the self-assessment process to improve learning
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Its special emphasis on research methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



We offer you a complete specialization on Infectious Diseases in children to improve your training in the care of your patients"



This specialization will train you for the appropriate treatment in the different cases of infectious pathology"

Its teaching staff includes professionals from the nursing field, who contribute their work experience to this training, as well as renowned specialists from leading scientific societies.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive training experience designed to train for real-life situations.

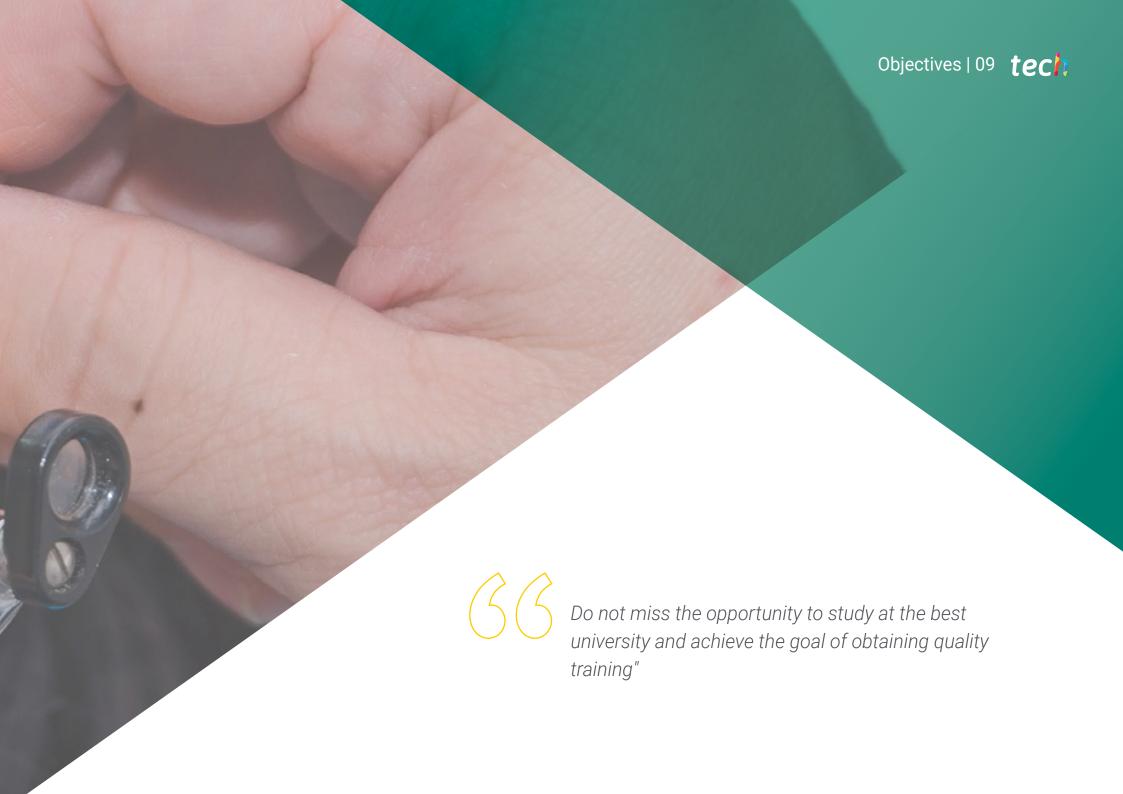
The design of this program focuses on Problem Based Learning, by means of which the nurse must try to solve the different professional practice situations that arise throughout the academic year. For this purpose, the professional will be assisted by an innovative interactive video system developed by recognized experts in the field of Infectious Diseases in Pediatric Patients with extensive teaching experience.

A 100% online training that will allow you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.

Take the opportunity to learn about the latest advances in Infectious Diseases in Pediatric Patients and improve the care of your patients.







# tech 10 | Objectives



### **General Objectives**

- Provide the necessary theoretical knowledge to be able to understand the environment in which the professional activity is developed to care for patients with Infectious Diseases
- Provide the appropriate treatment in the different cases of infectious diseases
- In-depth study of each of the areas in which professionals must be trained to be able to practice with knowledge in the care of infectious pathologies



Update your knowledge through the program on Infectious Diseases in the Emergency Department of the Pediatric Patient for Nursing"



### **Specific Objectives**

### Module 1. Update on Infectious Diseases

- Define virulence factors and toxins
- Identify the main human pathogens in our environment
- Explain the different current scenarios of infection in the Emergency Department
- Describe the etiopathogenic profiles of bacterial infections
- Describe the etiopathogenic profiles of viral infections
- Describe the etiopathogenic profiles of fungal infections
- Describe the etiopathogenic profiles of microbacterial infections
- Describe the etiopathogenic profiles of parasitic infections

### Module 2. The Microbiology Laboratory in the Emergency Department

- Describe the process of collecting specimens
- Define which specimens are most commonly requested in the Emergency Department
- Explain the collection of specimens in patients with devices
- Describe the management of specimens in the laboratory
- Explain the clinical significance of bacterial resistance
- Define the techniques available for emergency diagnoses
- Describe the interpretation of preliminary results
- Explain the analytical interpretation of the different types of samples
- Define the procedures in hospitals without on-call microbiologists
- Explain the diagnostic techniques that can possibly be performed in the emergency department laboratory



### Module 3. Public Health and Infectious Disease in the Emergency Department

- Describe the action protocols in cases of specific exposure
- Describe the established isolation protocols
- Explain the current indications of exclusion or isolation
- Describe notifiable diseases
- Explain the procedure for emergency declaration to Public Health
- Describe the action protocol for epidemiological outbreaks
- Describe imported pathology, as well as pathology with high contagious capacity
- Describe the seasonal epidemiological parameters in the most common infections in the community
- Explain epidemic outbreaks and common sources with punctual, continuous, propagative and mixed exposure
- Define the post-exposure prophylaxis that is initiated in the emergency department
- Describe the process to follow in the case of Bacterial Meningitis
- Describe the process to follow in the case of HIV Infection
- Describe the process to follow in the case of Sexual Assault
- Describe the process to follow in the case of Rabies

# Module 4. Infectious Diseases in the Emergency Department of the Pediatric Patient

- Describe the management of fever syndrome and exanthems in a pediatric patient in the Emergency Department
- Explain the emergency diagnosis and treatment of skin, soft tissue and skeletal system infections in pediatric patients
- Explain the emergency diagnosis and treatment of ENT and respiratory infections in pediatric patients
- Explain the emergency diagnosis and treatment of gastrointestinal, genitourinary and STI infections in pediatric patients
- Explain the emergency diagnosis and treatment of the central nervous system and cardiovascular infections in pediatric patients.
- Explain the therapeutics in pediatric infectious diseases





# tech 14 | Course Management

### Management



### Dr. García del Toro, Miguel

- PhD in Medicine from the University of Valencia
- Head of the Infectious Diseases Unit at the General University Hospital Consortium of Valencia
- 50 national and international publications in journals and books, 33 of them indexed in Pubmed and/or Scopus
- President Congress of the National Group for the Study of Hepatitis of the Society of Infectious Diseases and Clinical Microbiology 2017
- More than 200 communications to National and International Congresses in the specialty of Infectious Diseases, HIV and Viral Hepatitis
- Main investigator of some twenty clinical trials and/or research projects



### Ms. García Rodríguez, Magdalena

- Degree in Medicine and Surgery
- Specialist in Internal Medicine
- Attending Physician in the Infectious Diseases Unit and the Consorcio General Hospital Valencia
- Head of the International Health and Travel Advice Section
- Author of several publication and research projects
- Founding member and advisor of the Chagas Disease Association of the Valencian Community
- Member of a vaccine study group for the Spanish Society of Infectious Diseases and Clinical Microbiology.
- Member of a Malaria study group for the Spanish Society of Infectious Diseases and Clinical Microbiology.



### Ms. Ricart Olmos, María del Carmen

- Degree in Medicine and Surgery
- Specialist in Internal Medicine
- Attending Physician in the Infectious Diseases Unit and the Consorcio General University Hospital, Valencia
- Author of several publication and research projects
- Editor of the Consensus Document on Age and Human Immunodeficiency Virus Infection Expert Group of the Secretariat of the National AIDS Plan (SPNS), Spanish Society of Geriatrics and Gerontology (SEGG)
- Master's Degree in Infectious Diseases in Intensive Care





### tech 18 | Structure and Content

### Module 1. Update on Infectious Diseases

- 1.1. Principles of Infection
  - 1.1.1. Virulence Factors and Toxins
  - 1.1.2. Defensive Mechanisms of the Host
- 1.2. Main Human Pathogens in our Environment
  - 1.2.1. Current Epidemiology of the Infection
  - 1.2.2. Data on a Worldwide Level
  - 1.2.3. Data in our Environment
  - 1.2.4. Microbial Resistance
- 1.3. Current Scenarios of Infection in the Emergency Department
  - 1.3.1. Elderly Patients
  - 1.3.2. Oncology Patients
  - 1.3.3. Chronic Renal Patients on Dialysis
  - 1.3.4. Transplant Recipient
  - 1.3.5. HIV Infection
  - 1.3.6. Travelers and Immigrants
- 1.4. Etiopathogenic Profiles of Infection
  - 1.4.1. Bacterial Infections
  - 1.4.2. Viral Infections
  - 1.4.3. Fungal Infections
  - 1.4.4. Microbacterial Infections
  - 1.4.5. Parasitic Infections

### Module 2. The Microbiology Laboratory in the Emergency Department

- 2.1. Process of Sample Collection
  - 2.1.1. General Considerations for Taking, Conserving and Transporting the Samples for Microbiological Study
  - 2.1.2. Material for Sample Collection
- 2.2. Management of Samples in the Laboratory
  - 2.2.1. Receiving Samples
  - 2.2.2. Processing
  - 2.2.3. Methods and Techniques used for Microbiological Diagnosis According to the Main Infectious Syndromes



- 2.3. Techniques Available for Emergency Diagnoses
  - 2.3.1. Bacteria
  - 2.3.2. Virus
  - 2.3.3. Fungi
  - 2.3.4. Mycobacteria
  - 2.3.5. Parasites
- 2.4. Interpretation of Preliminary Results
  - 2.4.1. Interpreatation of Microbiological Diagnostic Tests
- 2.5. Procedures in Hospitals Without On-call Microbiologists
  - 2.5.1. Disadvantages of Not Having an On-call Microbiologist
  - 2.5.2. Advantages of Having an On-call Microbiologist
  - 2.5.3. On-call Care without a Microbiologist

# **Module 3.** Public Health and Infectious Disease in the Emergency Department

- 3.1. Emergency Department Personnel
  - 3.1.1. Initial Assessment
  - 312 Vaccines
  - 3.1.3. Action Protocols in Cases of Specific Exposure
- 3.2 Established Protocols of Isolation
  - 3.2.1. Types of Transmission and Methods of Isolation
  - 3.2.2. Special Situations
- 3.3. Notifiable Diseases and Urgent Declaration to Public Health
  - 3.3.1. Concept of Notifiable Diseases
  - 3.3.2. Surveillance of Notifiable Diseases
- 3.4. Special Situations
  - 3.4.1. Annual Flu
  - 3.4.2. Epidemiological Outbreaks
  - 3.4.3. Imported Pathology Possibility of Pathology with High Contagious Capacity
- 3.5. Updates Epidemiological Outbreaks
  - 3.5.1. Seasonal Epidemiological Parameters in the Most Common Infections in the Community
  - 3.5.2. Epidemic Outbreak and Types of Source

- 3.6. Post-exposure Prophylaxis that is Initiated in the Emergency Department
  - 3.6.1. Bacterial Meningitis
  - 3.6.2. HIV Infection
  - 3.6.3. Sexual Assault
  - 3.6.4. Rabies

# **Module 4.** Infectious Diseases in Pediatric Patients in the Emergency Department

- 4.1. Fever Without Focus
  - 4.1.1. Child With a Fever Without Focus and Poor Appearance
  - 4.1.2. Fever Without Focus and Good General Appearance
  - 4.1.3. Children from 3-36 Months Old With a Fever Without Focus and Good General Appearance
  - 4.1.4. Breastfeeding Infant less than 3 Months Old With a Fever Without Focus and Good General Appearance
- 4.2. Sepsis and Septic Shock
  - 4.2.1. Concept
  - 4.2.2. Current Definition of Shock and Septic Shock.
  - 4.2.3. Etiology and Epidemiology
  - 4.2.4. Pathophysiology
  - 4.2.5. Risk Factors
  - 4.2.6. Differential Diagnosis
  - 4.2.7. Clinical symptoms
  - 4.2.8. Complementary Tests
  - 4.2.9. Treatment
- 4.3. Fever in a Traveling Child
  - 4.3.1. Medical History
  - 4.3.2. Physical Exploration
  - 4.3.3. Complementary Tests
  - 4.3.4. Treatment
  - 4.3.5. Malaria
  - 4.3.6. Dengue.

# tech 20 | Structure and Content

4.4.	Exanthem		
	4.4.1.	Etiology	
	4.4.2.	Diagnosis	
	4.4.3.	Differential Diagnosis	
4.5.	Skin and Soft Tissue Infections		
	4.5.1.	Aetiopathogenesis.	
	4.5.2.	Diagnosis	
	4.5.3.	Main Clinical Framework	
	4.5.4.	Treatment	
	4.5.5.	Community-Acquired Methicillin-Resistant S. Aureus	
4.6.	Cervical Adenitis		
	4.6.1.	Etiology	
	4.6.2.	Clinical Evaluation	
	4.6.3.	Diagnosis and Treatment	
	4.6.4.	Differential Diagnosis	
4.7.	Osteoarticular Infections: Acute Osteomyelitis and Septic Arthritis		
	4.7.1.	Epidemiology	
	4.7.2.	Aetiopathogenesis.	
	4.7.3.	Clinical Symptoms	
	4.7.4.	Diagnosis	
	4.7.5.	Differential Diagnosis	
	4.7.6.	Treatment	
4.8.	Pharyngotonsillitis and Its Complications		
	4.8.1.	Concept	
	4.8.2.	Epidemiology and Etiology	
	4.8.3.	Clinical Symptoms	
	4.8.4.	Diagnosis	
	4.8.5.	Treatment	

4.9.	Otitis Media and External Sinusitis			
	4.9.1.	Concept of Otitis Media and External		
		4.9.1.1. Epidemiology and Etiology		
		4.9.1.2. Clinical Symptoms		
		4.9.1.3. Complications		
		4.9.1.4. Diagnosis		
		4.9.1.5. Treatment		
	4.9.2.	Concept of Acute Sinusitis		
		4.9.2.1. Epidemiology and Etiology		
		4.9.2.2. Clinical Symptoms		
		4.9.2.3. Diagnosis		
		4.9.2.4. Treatment		
4.10.	Acute Mumps			
	4.10.1.	Epidemic Mumps		
	4.10.2.	Vaccines		
	4.10.3.	Prevention of Epidemic Outbreaks		
4.11.	Laryngitis and Epiglottitis			
	4.11.1.	Concept		
	4.11.2.	Epidemiology and Etiology		
	4.11.3.	Clinical symptoms		
	4.11.4.	Diagnosis		
	4.11.5.	Treatment		
	4.11.6.	Admission Criteria		
4.12.	Syndrome Pertusoids			
	4.12.1.	Concept		
	4.12.2.	Epidemiology and Etiology		
	4.12.3.	Clinical symptoms		
	4.12.4.	Complications		
		Diagnosis		
	4.12.6.	Treatment		
	4.12.7.	Prevention		

- 4.13. Bronchiolitis and Recurrent Wheezing Episodes
  - 4.13.1. Acute Bronchiolitis
  - 4.13.2. Recurrent Wheezing
- 4.14. Pneumonia and Complications
  - 4.14.1. Epidemiology
  - 4.14.2. Etiology
  - 4.14.3. Clinical Characteristics
  - 4.14.4. Diagnosis
  - 4.14.5. Treatment
  - 4.14.6. Prevention
  - 4.14.7. Complications
- 4.15. TB
  - 4 15 1 Manifestations
  - 4.15.2. Diagnosis
  - 4.15.3. Treatment
- 4.16. Acute Gastroenteritis
  - 4.16.1. Aetiopathogenesis
  - 4.16.2. Clinical symptoms
  - 4.16.3. Diagnosis
  - 4 16 4 Treatment
- 4.17. Viral Hepatitis
  - 4.17.1. Evaluation and Initial Management of Hepatitis in the Emergency Department
  - 4.17.2. Classic Viral Hepatitis
- 4.18. Appendicitis (Need for Antibiotic or Not) and Perirectal Absesses
  - 4.18.1. Acute Appendicitis
  - 4.18.2. Perirectal Abscess
- 4.19. Urinary Infection
  - 4.19.1. Definition
  - 4.19.2. Aetiopathogenesis
  - 4.19.3. Clinical. When to Suspect a Urinary Tract Infection in the Pediatric Age?
  - 4.19.4. Diagnosis
  - 4.19.5. Management

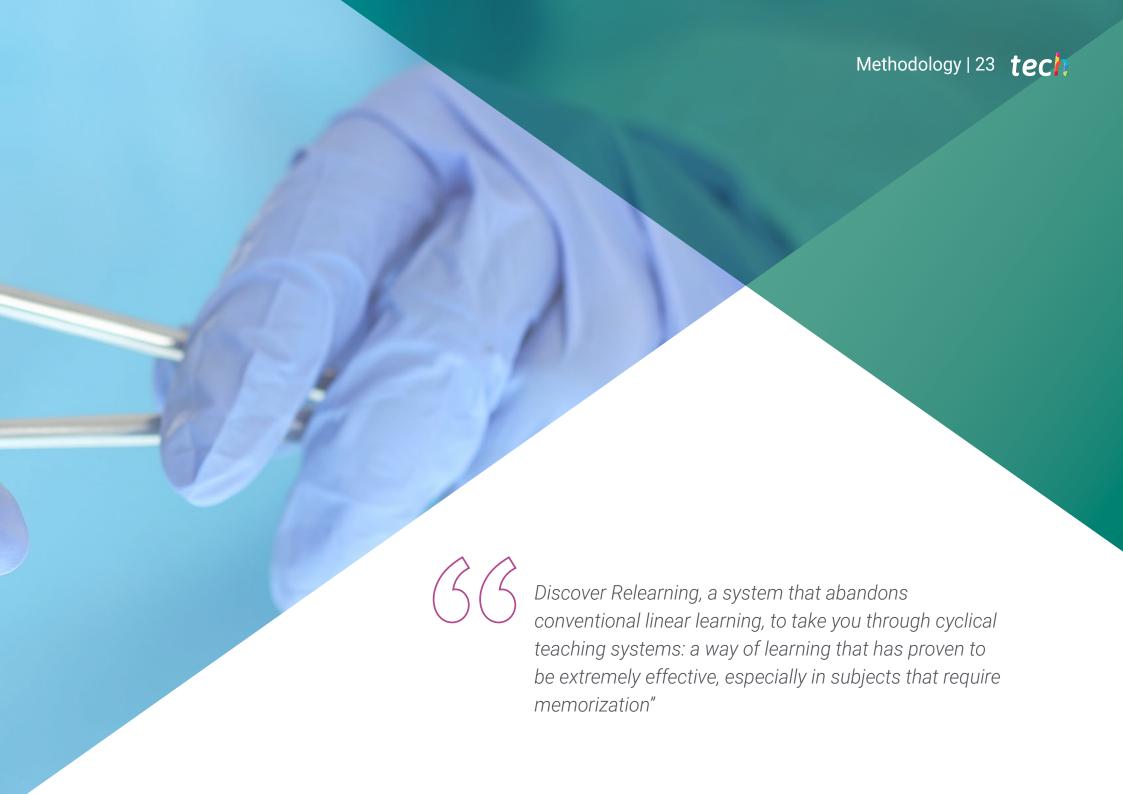
- 4.20. CNS Infections in Pediatrics: Acute Meningitis
  - 4.20.1. Etiology
  - 4.20.2. Clinical symptoms
  - 4.20.3. Diagnosis
  - 4.20.4. Treatment
  - 4.20.5. Chemoprophylaxis
  - 4.20.6. Complications and Prognosis
- 4.21. Endocarditis, Myocarditis and Pericarditis
  - 4.21.1. Infectious Endocarditis
  - 4.21.2. Myocarditis
  - 4.21.3. Pericarditis
- 4.22. Treatment in Pediatric Infectious Diseases
  - 4.22.1. Bacterial Infections in the Pediatric Emergency Department: Diagnosis and Antibiotic Treatment of Choice, Depending on the Resistance of the Pathogens Responsible for the Disease
  - 4.22.2. Delayed Antibiotic Prescribing Strategy
  - 4.22.3. When is the Association of Amoxicillin with Clavulanic Acid and Macrolides Indicated in Pediatrics?
  - 4.22.4. Do I Also Have to be Careful with Topical Antibiotherapy to Avoid Bacterial Resistance?





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.

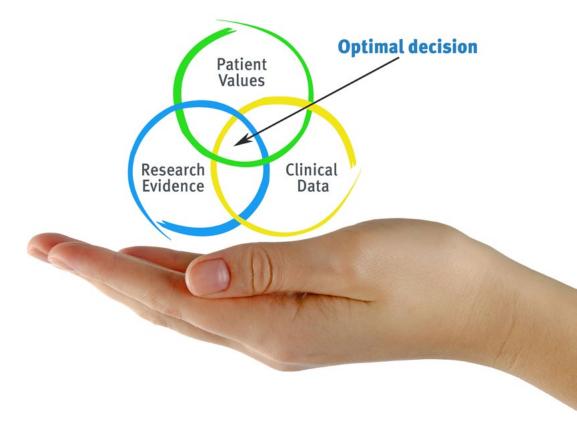


# tech 24 | Methodology

### At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing practice.



Did you know that this method was developed in 1912 for Harvard 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:

- Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
- 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 case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.

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



### Methodology | 27 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 we have trained more than 175,000 nurses with unprecedented success, in all specialities regardless of practical workload. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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 really 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.



### **Nursing 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 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.



### **Testing & Retesting**

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of achieving their goals.

and direct way to achieve the highest degree of understanding.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

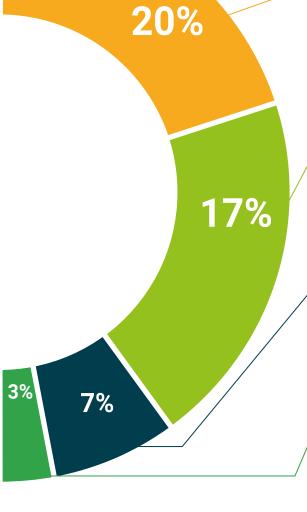




#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









# tech 32 | Certificate

This Postgraduate Diploma in Infectious Diseases in the Emergency Department of the Pediatric Patient for Nursing 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 diploma 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 Infectious Diseases in the Emergency Department of the Pediatric Patient for Nursing

Official No of Hours: 500 h.



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

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# Postgraduate Diploma

Infectious Diseases in the Emergency Department of the Pediatric Patient for Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
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