**Postgraduate Certificate** Clinical Simulation in the Emergency Department

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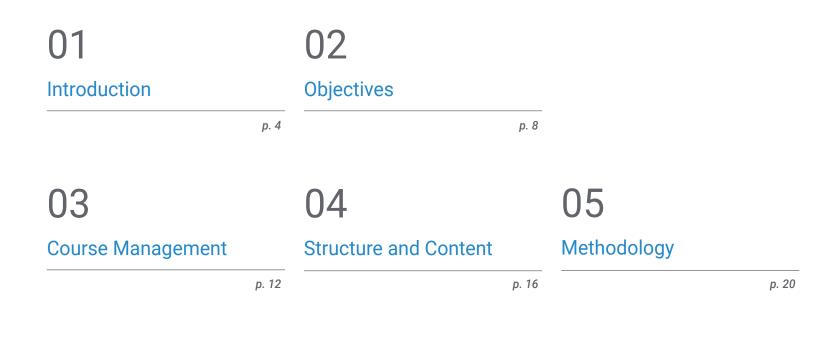




## **Postgraduate Certificate** Clinical Simulation in the Emergency Department

Course Modality: Online Duration: 6 weeks Certificate: TECH Technological University Teaching Hours: 150 Website: www.techtitute.com/us/medicine/postgraduate-certificate/clinical-simulation-emergency-department

# Index



06 Certificate

# 01 Introduction

New technologies are a highly useful tool in the different stages of work in the emergency department and it is imperative for professionals to know how to use them to their advantage in daily practice. In this sense, one of the elements that most contributes to the emergency department is simulation, as it is a learning tool that allows for the development of crucial aspects such as conflict resolution, reinforcing teamwork and leadership. Aware of this, TECH professionals have designed this program to instruct physicians in making good use of simulation and thus expand their skills in this regard.

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Clinical Simulation can be a great tool in the emergency department because it enhances conflict resolution and teamwork. Thus, the medical team will be much more cohesive and will work much more efficiently"

## tech 06 | Introduction

The TECH Postgraduate Certificate in Clinical Simulation in Emergency Medicine was created with the objective of providing medical professionals with the necessary knowledge to successfully carry out dynamic processes that involve creating scenarios that convey an authentic representation of reality. This proves extremely useful for emergency physicians, because it encourages active participation and integrates the learning-by-doing methodology in such a way that the situation can be repeated as many times as necessary until an effective solution is reached.

In this sense, throughout the program, students will be taught to recognize scenarios where the application of Clinical Simulation can be highly useful and to solve various problems that may arise. To that end, emergency physicians will learn to recreate and prepare ideal situations to carry out simulations and to promote teamwork among the entire medical staff, nurses and other emergency professionals included.

Likewise, students will learn more about the existing types of simulation and which are most useful for each case. Students will also acquire skills to effectively conduct *briefings* and *debriefings*. All this will allow them to carry out simulations for the purpose of fostering team skills and improving overall performance.

Last but not least, professionals will acquire the necessary skills to foster teamwork and leadership within the department. This will enable them to create a more efficient work environment and, therefore, a high-performing emergency department.

This Postgraduate Certificate also stands out for being an online program, so students are not obliged to travel to a specific center or to study at a specific time. On the contrary, this specialization is totally flexible, so students only need a computer or mobile device with an Internet connection to be able to take this Postgraduate Certificate at their own accord, so they can balance it with the rest of their daily obligations.

This **Postgraduate Certificate in Clinical Simulation in the Emergency Department** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- Numerous practical cases presented in form of *In Focus* videos and clinical videos made by experts in Emergency Medicine
- 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 activity presentations on procedures and techniques
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- Action protocols and clinical practice guidelines which cover the most important latest developments in this specialist area
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Its special emphasis on evidence-based medicine and research methodologies in dealing with patients requiring Emergency services
- Content that is accessible from any fixed or portable device with an Internet connection

TECH wants to train you to be able to successfully build your professional career beyond your most ambitious dreams"

## Introduction | 07 tech

This program makes the difference between a merely knowledgable professional and one who knows how to apply this knowledge to daily professional practice"

The program's teaching staff includes medical professionals that bring their experience to this training program, as well as renowned specialists from leading scientific communities and prestigious universities.

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 immersive specialization programmed to learn 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.

Throughout the program, we will teach you how to develop simulated environments to foster teamwork and leadership. This will make you a much more reputable and soughtafter professional in the field.

This training program will enable you to acquire cross-cutting skills ideal for effective practice.

# 02 **Objectives**

TECH's main objective is clear: to create the most competent professionals in the medical field and, therefore, the most sought-after. To do so, it makes use of a very complete content bank designed in multimedia formats and adapted to the needs of the new breed of student. Likewise, TECH assures professionals that, by studying here, they will have access to the most reputable emergency physicians in the field, who pour their years of practical experience into this program. In short, the perfect union of professionals, syllabus and content make it possible for this University to optimally train the best physicians in the field.



TECH has only one goal: to aid in your growth by offering you the best content and the most reputable teaching staff in the field"

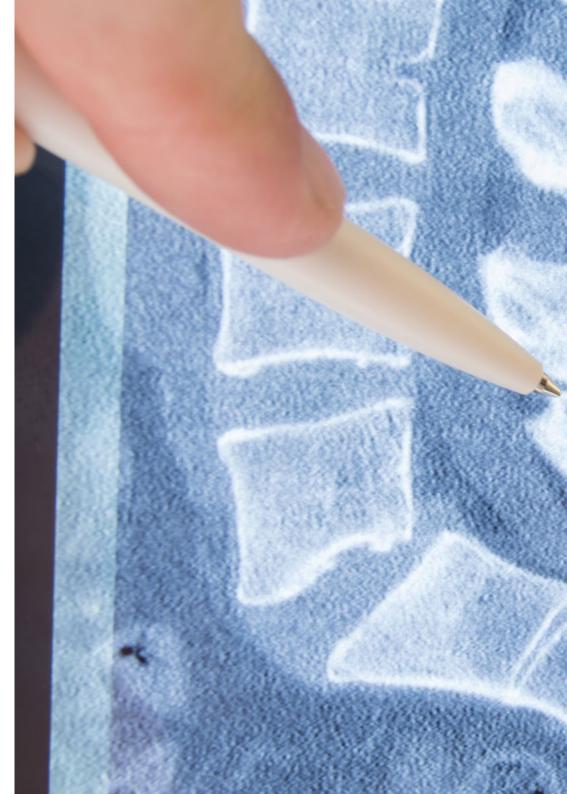
## tech 10 | Objectives



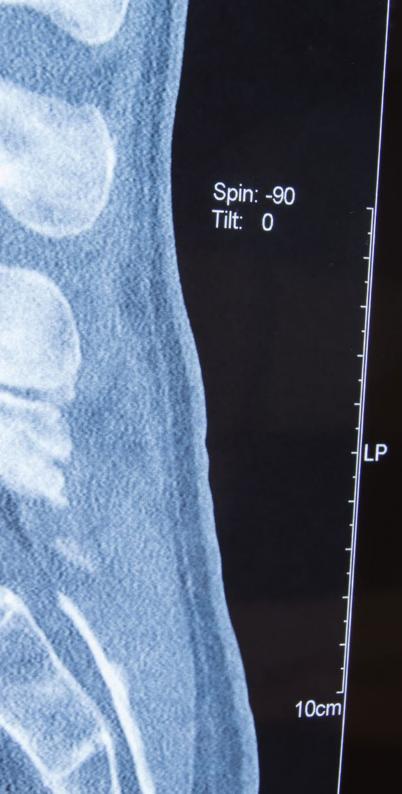
## **General Objectives**

- Specialize emergency medicine professionals in the methods that enable highly effective and efficient care in hospital emergency departments and primary care centers
- Apply the most complete and up-to-date syllabus on the market, designed by the best professionals in the field, to offer the most complete specialization to students
- Successfully treat patients in the emergency department with the knowledge to respond





## Objectives | 11 tech





## Specific Objectives

- Obtain basic knowledge about simulation as a tool for learning and safety in the emergency department
- Know the tools to develop simulation scenarios in relation to emergency pathologies
- Review and acquire leadership tools in the emergency department
- Delve into the tools necessary for teamwork development
- Obtain the skills to effectively conduct *briefings* and *debriefings*

# 03 Course Management

The design and creation of the theoretical and multimedia materials has been carried out by a team of leading professionals in the area of emergency medicine, who carry out their professional activity in the main hospitals in the country. They will be in charge of educating you, transferring all their practical experience so students will be able to design and implement simulated environments, ideal to study specific cases and to promote teamwork, thus obtaining improved professional results.

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Learn about the latest advances in simulation applied to emergency services from leading professionals"

## tech 14 | Course Management

### **International Guest Director**

Dr. Ugo Ezenkwele is an eminent expert in the field of emergency medicine and managerial leadership in healthcare. His extensive experience in healthcare is coupled with his clinical and academic management skills. In this regard, his deep medical knowledge has led him to become Head of Emergency Medicine at Mount Sinai Queens. With his arrival in the position, innovative programs such as the ED Observation Unit, ED Geriatric Certification, Telemedicine, Emergency Management and Disaster Preparedness were launched to improve performance and patient experience.

In 2021, Dr. Ezenkwele received recognition for his outstanding work with the Crains New York award for Notable Black Leader and Executive. He has also earned numerous prestigious recognitions such as the Vituity Award in Executive Leadership, the National Medical Association's Service Excellence Award and the Visionary Educator Award from the Academic Society of Emergency Medicine.

His excellent management skills have led him to assume leadership roles in major medical organizations, serving as president of the National Medical Association's Section of Emergency Medicine and vice president of the Society for Academic Emergency Medicine's Academy of Diversity and Inclusion in Emergency Medicine. In both positions, he worked to implement policy changes with the goal of positively impacting the next generation of physician leaders and the communities they serve. In addition, he is an advisor to the American College of Emergency Physicians (ACEP) and an oral examiner for the American Board of Emergency Medicine (ABEM), responsibilities that demonstrate his commitment to continuous improvement in medical practice and his dedication to training skilled physicians.



## Dr. Ezenkwele, Ugo

- Head of the Department of Emergency Medicine at Mount Sinai Queens, Astoria
- Attending Physician at Woodhull Medical and Mental Health Center an NYU Langone
  Affiliate Hospital
- Vice Chair of Emergency Medicine at Woodhull Medical and Mental Health Center an NYU Langone Affiliate Hospital
- Physician Liaison for Clinical Faculty Recruitment NYULMC Clinical Affairs Department
- M.D. from Johns Hopkins University
- MPH International Health Johns Hopkins University
- BS in Biology Johns Hopkins University
- Vituity Wes Curry Award for Executive Leadership
- Crains New York Business Notable Black Leader & Health Executive
- Excellence in Leadership Woodhull Medical and Mental Health Center
- National Medical Association's Emergency Medicine Section Leadership Award
- National Medical Association Excellence in Service Award (2013 and 2014)
- President of the American College of Emergency Physicians (ACEP) Diversity, Equity and Inclusion Committee
- ABEM Oral Board Examiner



## tech 16 | Course Management

#### Management



### Dr. Torres Santos-Olmo, Rosario María

- Area Specialist in the Adult Emergency Department at La Paz Hospital, Madrid
- Degree in Medicine and Surgery
- PhD in Medicine and Surgery
- Specialist in Family and Community Medicine
- Master's Degree in Palliative Care and Supportive Neoplastic Patients Care
- Life Support Instructor (BLS, ALS, ILS, ATLS)
- Master's Degree in Palliative Care and Supportive Neoplastic Patient Care
- Master's Degree in Patient Safety and Health Risk Management.
- Clinical Collaborator at the Autonomous University of Madrid



### Dr. Rivera Núñez, María Angélica

- Assistant Coordinator in the Emergency Department at La Paz University Hospital, Madrid
- Surgeon at Universidad de Chile, Santiago de Chile
- Doctorate in Medicine and Surgery, Autonomous University of Madrid
- Specialist in Internal Medicine from the Catholic Pontificia University, Chile
- Certificate in Emergency Medicine
- Specialist Physician in Emergency Medicine at La Paz University Hospital, Madrid

## Course Management | 17 tech

### Professors

#### Dr. Calvín García, María Elena

- Clinical Assistant and Mentor, Emergency Department, La Paz University Hospital
- Degree in Medicine
- Specialist in Family and Community Medicine
- Master's Degree in Emergency Medicine, Complutense University, Madrid
- HULP Emergency Department Attending Physician
- Clinical Reference in Emergency Services HULP

#### Dr. Cancelliere, Nataly

- HULP Emergency Department Specialist in
- Doctorate in Medicine from the Autonomous University Madrid
- Specialist in Ophthalmology at University Hospital La Paz
- Master's Degree in Emergency Medicine, SEMES

### Dr. González Viñolis, Manuel

- HULP Emergency Department Attendant
- Degree in Medicine and Surgery from La Laguna University
- Master's Degree in Clinical Unit Management from the University of Murcia

### Dr. Martínez Zarza, Ana María

- Quality and Teaching Coordinator in the HULP Emergency Department
- Graduate in Medicine and Surgery from the University of Valladolid
- PhD in Medicine and Surgery from the Autonomous University of Madrid
- Master's Degree in Medical and Clinical Management from the National University of Distance Education, Spain
- Medical Surgical Emergencies Expert
- HULP Emergency Department Attending Physician

### Dr. Maroun Eid, Charbel

- Attending Emergency Physician at HULP
- Degree in Medicine and Surgery from Gallegos Rómulo University
- Master's Degree in Cardiovascular Risk Prevention from Alcalá University

#### Dr. Martín Quirós, Alejandro

- HULP Emergency Department Attending Physician
- Degree in Medicine and Surgery from the University of Cadiz
- PhD from Universidad Autónoma de Madrid within the Program in Medicine

#### Dr. Mayayo Alvira, Rosa

- Head of the Toxicology Unit in the HULP Emergency Department
- Degree in Medicine from Rovira i Virgili University
- HULP Emergency Department Attending Physician

### Mr. Rubio Bolivar, Javier

- HULP Simulation Technician
- CEASEC Simulation Technician

# 04 Structure and Content

The structure of the curriculum has been designed by a team of medical professionals who are fully aware of the importance of university studies in hospital and out-ofhospital emergencies, especially in the area of new technologies. This team, aware of the relevance and timeliness of training programs, and committed to quality teaching through the use of innovative formats, has created this training program specifically designed for physicians to learn how to successfully manage simulated environments wherein to study cases, foster leadership of medical teams and achieve optima results for patients.

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This Postgraduate Certificate in Clinical Simulation in the Emergency Department contains the most complete and up-to-date scientific program on the market"

## tech 20 | Structure and Content

#### Module 1. Clinical Simulation in Emergencies

- 1.1. Basic Principles in Clinical Simulation
- 1.2. Types of Clinical Simulation
- 1.3. The Importance of Communication in Clinical Simulation
- 1.4. Types of Simulators
- 1.5. Briefing and Debriefing
- 1.6. Leadership, Teamwork and Role Distribution
- 1.7. Types of Evaluations in Clinical Simulation
- 1.8. Scenario Preparation





## Structure and Content | 21 tech

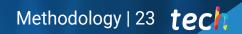


Welcome the specialization program that will take your career to the next level. Don't let this opportunity slip away"

# 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.



*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* 

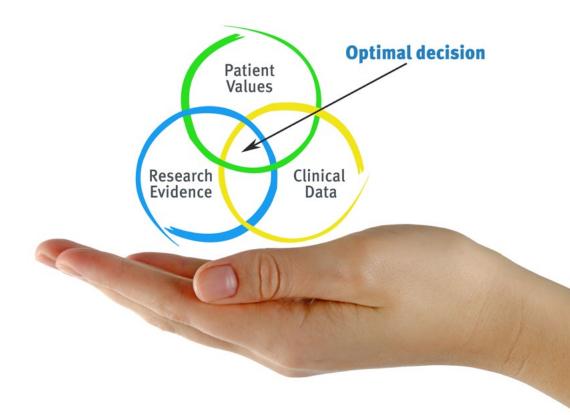
memorization"

## tech 24 | 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.



## tech 26 | Methodology

### **Relearning Methodology**

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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 | 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, 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 28 | 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.

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15%

3%

15%

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.

## Methodology | 29 tech



#### **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.

20%

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17%



#### **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.



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**

The Postgraduate Certificate in Clinical Simulation in the Emergency Department guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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"

## tech 32 | Certificate

This **Postgraduate Certificate in Clinical Simulation in the Emergency Department** 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 diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by job markets, competitive professional career evaluation committees.

Title: Postgraduate Certificate in Clinical Simulation in the Emergency Department Official Number of Hours: 150 h.



\*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.

technological university Postgraduate Certificate **Clinical Simulation** in the Emergency Department Course Modality: Online Duration: 6 weeks Certificate: TECH Technological University Teaching Hours: 150

Postgraduate Certificate Clinical Simulation in the Emergency Department



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