

# Professional Master's Degree

## Advanced Urgent Care and Emergency Medicine





## Professional Master's Degree Advanced Urgent Care and Emergency Medicine

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

Website: [www.techtute.com/us/medicine/professional-master-degree/master-advanced-urgent-care-emergency-medicine](http://www.techtute.com/us/medicine/professional-master-degree/master-advanced-urgent-care-emergency-medicine)

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# 01

# Introduction

Hospital and out-of-hospital emergencies are one of the health fields with the highest demand for medical experts. This is due to the high number of people who frequently require these services and who need first-rate care, which makes it necessary for emergency physicians to have a quality specialization in order to respond to the real needs of these patients. Aware of this, TECH has designed this advanced emergency medicine program to keep professionals in emergency care up to date at a higher educational level. Thus, for those who are already specialized in Emergency Medicine, this program is the next level of specialization.







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*This program is designed to respond to the current needs in emergency departments. Technology, organ donation, rare diseases, special needs patients, high-risk respiratory infections and other challenges in the emergency department are some of the topics that will be addressed in this Professional Master's Degree”*

Urgent care and emergency medicine have undergone spectacular development in recent years. Not only because of the high need for medical experts in this field, but also because of the new daily challenges faced by emergency department professionals at hospital or primary care center. That is why it is absolutely mandatory for physicians in the field to continuously update their knowledge in order to respond to the specific requirements of patients and, therefore, offer an efficient and high-quality service.

Fully aware of the situation, the best doctors in the field have developed this Professional Master's Degree in Advanced Urgent Care and Emergency Medicine for TECH, whose main objective is to update and review the practical protocols required to provide first-rate care in emergency services. The program will also delve into aspects normally absent in emergency studies, such as dealing with special needs patients, organ donation, clinical ultrasound for emergency physicians and teaching aspects such as simulation.

Professionals who choose to take this program will obtain the skills required to offer optimal work in advanced areas of emergency medicine, as well as an updated understanding of the organizational and management aspects of the service. In terms of content, current issues such as high-risk infectious diseases, pandemics and the protocols used in emergency departments will be covered in depth, as well as advanced topics such as toxicology and rare diseases. All this, with the aim of providing physicians with transversal competencies that will allow them to work successfully in all areas of emergency medicine.

All this knowledge will be taught by leading professionals in the field of emergency medicine, who will put all the knowledge acquired in their years of experience into the program. That knowledge and experience will be presented in numerous practical cases that will support students when facing specific situations in daily professional practice.

This **Professional Master's Degree in Advanced Urgent Care and Emergency Medicine** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ 100 practical cases presented in the 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
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist area
- ♦ 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 in the emergency department
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Start improving your skills as an emergency physician today with this program, which will equip you with the skills required to effectively treat patients who come to the service"*

“

*Undoubtedly, this Professional Master's Degree will be the differential point between an emergency professional and another who is highly competent and trained to respond to current patient needs in daily professional practice”*

The program's teaching staff includes a team of healthcare professionals, who bring their experience to this training program, as well as renowned specialists from leading scientific societies.

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

This program is designed around Problem-Based Learning, whereby students 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.

*A unique opportunity to face real cases that physicians may encounter during their time in the Emergency Department.*

*Investing in this Professional Master's Degree is an opportunity to significantly increase your chances of achieving professional success.*



# 02 Objectives

TECH's main objective is clear: to offer superior training to 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 2.0 students. TECH assures students that, by studying here, they will have access to the most renowned professionals in the field, who pour their years of practical experience into the program. The program is the perfect union of professionals, syllabus and content, which makes it possible for this university to optimally specialize the best physicians in the field.







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*This program will enable you to meet and face the new challenges in the emergency department”*



## General objectives

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- ♦ 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 optimally to their specific needs



*Acquire the necessary knowledge to offer quality practice, providing your patients with expert and effective care”*





## Specific objectives

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### **Module 1. Current Challenges in Modern Emergency Department Management**

- ♦ Understand the general aspects of emergency department management and its evolution as a response to health care needs
- ♦ Develop specific aspects of emergency department organization in pandemic situations
- ♦ Acquire tools for the development of fundamental aspects of an emergency department: assistance, research and teaching
- ♦ Define general aspects of the inter-service relationship in emergency patient care and integrating the emergency department with the rest of the hospital
- ♦ Define and recognize the importance of quality of care in the emergency department, its objectives and indicators
- ♦ Define and recognize the importance of patient safety as a guide for all healthcare actions and develop guiding protocols Acquire knowledge for the development of multidisciplinary groups in patient safety in the emergency department
- ♦ Understand the humanization of health processes in the emergency department
- ♦ Gain deeper knowledge of the protocols used and the care provided in gender violence cases
- ♦ Delve into general knowledge and practical tools in biosafety

### **Module 2. Donation Process in Emergency Services**

- ♦ Acquire general notions in end-of-life care
- ♦ Broaden knowledge of therapeutic limitations in life support
- ♦ Gain in-depth knowledge of advance directives
- ♦ Acquire knowledge of donations in emergencies and pre-interview

### **Module 3. New Technologies in Emergency Services**

- ♦ Acquire general knowledge of new technologies and artificial intelligence
- ♦ Gain knowledge about the potential scenarios for the application of new technologies in the emergency department: catastrophes and pandemic situations
- ♦ Gain in-depth knowledge of the tools for adequate diagnostic tests in the emergency department
- ♦ Use new technologies in the emergency department
- ♦ Use new technologies for patient information in the emergency department

#### **Module 4. Advanced Vital Support**

- ♦ Acquire the ability to develop action protocols for CPR in risk situations
- ♦ Acquire knowledge of the requirements of advanced life support protocols
- ♦ Review the strengths of the European and American advanced life support guidelines
- ♦ Delve deeper into the dissemination mechanisms in advanced life support guidelines and protocols among healthcare personnel
- ♦ Acquire the tools to evaluate the implementation of protocols
- ♦ Apply advanced life support in adult and pediatric patients in special situations

#### **Module 5. Rare Diseases in Emergencies**

- ♦ Acquire general and epidemiological knowledge of rare diseases
- ♦ Review the reasons for patient consultation in the emergency department in cases of known rare diseases
- ♦ Gain in-depth knowledge that enables a high index of suspicion of rare diseases and their most frequent causes in consultation
- ♦ Delve into the general knowledge, diagnosis and emergency treatment of hereditary angioedema
- ♦ Delve into the general knowledge, diagnosis and emergency treatment of congenital coagulopathies
- ♦ Delve into the general knowledge, diagnosis and emergency treatment of porphyria
- ♦ Acquire general knowledge, diagnosis and emergency treatment of other rare diseases

#### **Module 6. Emergency Ultrasound**

- ♦ Review general aspects of clinical ultrasound in the emergency department
- ♦ Gain a deeper understanding of the tools for clinical ultrasound in acute abdominal pain in the emergency department
- ♦ Master the tools for clinical ultrasound in patients with acute renal failure and urological manifestations in the emergency department
- ♦ Expand the tools for clinical ultrasound in chest pain and other cardiovascular symptoms in the emergency department
- ♦ Learn the uses of clinical ultrasound in patients with acute dyspnea of uncertain origin in the emergency department
- ♦ Expand the tools for clinical ultrasound in patients with pain and increased volume of the lower limb in the emergency department
- ♦ Expand the tools for clinical ultrasound in patients with fever of unknown origin in the emergency department
- ♦ Establish the tools for clinical ultrasound in patients with hypotension and shock in the emergency department
- ♦ Gain knowledge about the tools for clinical ultrasound in acute cardiorespiratory arrest in the emergency department
- ♦ Recognize the tools for clinical ultrasound in polytraumatized patients in the emergency department
- ♦ Increase the tools for clinical ultrasound in ultrasound-guided procedures: central and peripheral venous access, arterial puncture, pericardiocentesis, paracentesis, thoracentesis, lumbar puncture in the emergency department



**Module 7. Clinical Simulation in Emergencies**

- ♦ Obtain basic knowledge about simulation as a tool for learning and safety in the emergency department
- ♦ Get to 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 correctly give briefings and debriefings

**Module 8. Clinical Toxicology in Emergency Services**

- ♦ Obtain general knowledge of poisoning
- ♦ Know the new aspects of new abused substances and their language
- ♦ Know the aspects of chemical submission and study protocols
- ♦ Acquire knowledge of the toxicity of the most common alternative medicines and pseudotherapeutic practices
- ♦ Gain knowledge of newly developed antidotes
- ♦ Internalize the knowledge of organ donation in brain death due to intoxication

**Module 9. Special Needs Patients in the Emergency Department**

- ♦ Review general aspects of special needs patients
- ♦ Use appropriate tools for the care of special patients
- ♦ Know specific protocols in the urgent care of special needs patients
- ♦ Obtain the necessary knowledge on the importance of accompanying special needs patients
- ♦ Recognize and manage complications in the care of these patients

**Module 10. High-Risk Infectious Diseases (HRID)**

- ♦ Review the PPE (Personal Protective Equipment) necessary in the care of these pathologies
- ♦ Develop diversified circuits in the Emergency Department
- ♦ Acquire educational tools for healthcare personnel through the development of emergency simulations
- ♦ Achieve the theoretical knowledge and tools to implement protocols for high-risk respiratory pathology
- ♦ Internalize the theoretical knowledge and tools to implement protocols for hemorrhagic fevers management
- ♦ Review current threats and current infectious diseases with high pandemic potential
- ♦ Check recommendations for future threats: how we prepare

# 03 Skills

After successfully passing the assessments for this Professional Master's Degree in Advanced Urgent Care and Emergency Medicine, students will have acquired the professional skills required to offer quality medical practice, up to date and based on the latest scientific evidence. All of this will turn them into highly efficient and skilled professionals, prepared to successfully manage emergency services in hospitals and primary care centers and, therefore, much more reputable physicians.





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*With this program, you will master the new diagnostic and treatment procedures used for patients in the emergency department”*



## General skills

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- ♦ Develop within the profession in terms of working with other health professionals, acquiring skills to work in a team
- ♦ Recognize the need to maintain your professional skills and, keep them up to date, with special emphasis on autonomous and continuous learning of new information
- ♦ Develop the capacity for critical analysis and research in your professional field
- ♦ Successfully put into practice the new methodologies that bring effectiveness to physician work
- ♦ Act efficiently in critical situations in daily professional practice
- ♦ Diagnose patients optimally in emergency and urgent care situations

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*Start today to acquire the knowledge that will allow you to grow within the profession and position yourself as a prestigious emergency physician”*







## Specific skills

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- ♦ Optimally manage an emergency department, adapted to current organizational needs
- ♦ Acquire good practices in daily emergency department situations
- ♦ Optimal handling of gender violence cases and other biosafety aspects
- ♦ Humanizing the treatment of all emergency situations
- ♦ Knowing how to correctly manage the end-of-life processes
- ♦ Organize the organ donation procedure
- ♦ Correctly handle new technologies that facilitate the day-to-day work of emergency professionals
- ♦ Understand new technologies contributions in emergency physician work
- ♦ Know how to work correctly with advanced life support and to know its international uses
- ♦ Reflect on the importance of education to emergency health care providers
- ♦ Develop tools that allow for ongoing assessment of resuscitation teams in different scenarios
- ♦ Learn how to work with patients who come to the emergency department with a rare disease and, therefore, need special treatment
- ♦ Learn about and approach how clinical ultrasound works in emergency settings
- ♦ Learn how to develop simulation scenarios as a means to reinforce teamwork and emergency physician leadership
- ♦ Learn to work with drug addicted patients in the emergency department
- ♦ Understand new aspects of chemical submission, chemsex and new antidotes
- ♦ Know how to use the tools that enable optimal communication with patients with specific needs
- ♦ Know the action protocols in case of suspicion of high-risk infectious diseases
- ♦ Know how to work correctly with PPE materials in case of high-risk infectious diseases
- ♦ Apply the required safety protocols to treat people with COVID-19 infection
- ♦ Identify, treat and provide necessary recovery guidelines for Coronavirus infections

# 04

# Course Management

The design and creation of the theoretical and multimedia materials has been carried out by a team of reference professionals in the area of Emergency Medicine, who have professional experience working in the main hospitals in the country. The teaching team will be in charge of offering superior specialization to students, transferring all their practical experience to them, so as to efficiently attend to the needs of their patients in the emergency department and, therefore, become much more competent physicians.





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*Learn about the latest advances  
in emergency medicine from  
leading professionals”*



## International Guest Conductor

EDr. 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 chair of the Society of 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

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- ♦ 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 President of Emergency Medicine at Woodhull Medical and Mental Health Center an NYU Langone Affiliate Hospital
- ♦ Physician Liaison for Clinical Faculty Recruitment - NYULMC Department of Clinical Affairs
- ♦ M.D. 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)

Member of: President of the American College of Emergency Physicians (ACEP) Diversity, Equity and Inclusion Committee, Member of the American College of Emergency Physicians (ACEP) Strategic Planning Advocacy Action Team, Member of the American Board of Emergency Medicine (ABEM) Stakeholder Advisory Group (SAG) for Becoming Certified Initiative, FEMA Region II Advisory Task Force on Vaccine Outreach ACEP Medical Legal Committee Member, ABEM Oral Board Examiner, Fellow of the American College of Emergency Physicians

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### 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
- ♦ PhD in Medicine and Surgery from the 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



### 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

## Professors

### 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 the Autonomous University of Madrid within the Program in Medicine

### Dr. Calvín García, María Elena

- ♦ Clinical Assistant and Mentor, Emergency Department, La Paz University Hospital
- ♦ HULP Emergency Department Attending Physician
- ♦ Clinical Reference in Emergency Services HULP

### 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

### Dr. Cancelliere, Nataly

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

### Dr. González Viñolis, Manuel

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

### Mr. Rubio Bolivar, Javier

- ♦ HULP Simulation Technician
- ♦ CEASEC Simulation Technician

# 05

## Structure and Content

The structure of the curriculum has been specially designed by a team of medical professionals, who are fully aware of the importance of university studies in hospital and out-of-hospital emergencies. This team, who is aware of the relevance and timeliness of the specialization, and who are committed to quality teaching through new educational technologies, has created this academic program especially designed for physicians to learn to successfully manage the needs of emergency department patients.







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*This Professional Master's Degree in Advanced Urgent Care and Emergency Medicine contains a complete program, specially designed for physicians to deal with all types of cases in their work in the emergency department”*

## Module 1. Current Challenges in Modern Emergency Department Management

- 1.1. Basic Advanced Concepts in Emergency Medicine
  - 1.1.1. Basic Concepts in Emergency Medicine
- 1.2. Management Challenges in Times of Pandemics
- 1.3. Quality Challenges in the Emergency Department
  - 1.3.1. Quality Care in the Emergency Department. Indicators
- 1.4. Challenges to Patient Safety in the Emergency Department
  - 1.4.1. Clinical Safety in the Emergency Department. Indicators
- 1.5. Biosafety in Accident and Emergency Care Medicine
- 1.6. Integrating the Emergency Department into the Rest of the Hospital
- 1.7. Emergency Services and the Problem of Gender Violence
- 1.8. Clinical Research in Emergency Medicine: Is It Possible?
- 1.9. Teaching in the Emergency Department: Beyond Assistance
- 1.10. Humanizing Management in Emergency Services

## Module 2. Donation Process in Emergency Services

- 2.1. Concept of End-of-Life Care in Emergency Services
- 2.2. Concept of Donation in Emergency Departments
- 2.3. Anticipated Wishes
- 2.4. Order Not to Initiate CPR Maneuvers
- 2.5. Pre-interview in the Emergency Department
- 2.6. Emergency Coordination - Transplant Team
- 2.7. Bioethics in Emergency Departments
- 2.8. The Role of the Family in the Donation Process in Emergency Services
- 2.9. Ethical Aspects of the Donation Process in Emergency Departments







### Module 3. New Technologies in Emergency Services

- 3.1. What Is Meant by New Technologies?
- 3.2. Computer Applications at the Service of the Emergency Physician
- 3.3. New Triage Systems in Emergencies
- 3.4. Artificial Intelligence at the Service of the Emergency Physician
- 3.5. New Technologies in Disaster Situations
- 3.6. New Technologies in Pandemic Situations
- 3.7. New Systems for Diagnostic Test Adequacy in Emergency Departments
- 3.8. Integrating Technology in Patient and Family Information
- 3.9. Bringing Patients Closer to the Emergency Department through Technology

### Module 4. Advanced Vital Support

- 4.1. Advanced Life Support in Adults
- 4.2. Advanced Airway Management
- 4.3. Rapid Intubation Sequence
- 4.4. Advanced Life Support Protocols in Adults
- 4.5. Advanced Life Support in Pediatric Patients
- 4.6. Special Situations in Advanced Life Support in Adults
- 4.7. Special Situations in Advanced Life Support in Pediatric Patients

### Module 5. Rare Diseases in the Emergency Department

- 5.1. Epidemiology and Rare Disease Problem Magnitude
- 5.2. Rare Diseases in Emergency Service Consultations
- 5.3. Hereditary Angioedema
- 5.4. Congenital Coagulopathies
- 5.5. Porphyrrias
- 5.6. Other Rare Diseases
- 5.7. Implementing Emergency Protocols. Current Situation
- 5.8. Useful Computer Applications for Emergency Physicians
- 5.9. Integration of Rare Disease Associations into the Emergency Department

### Module 6. Emergency Ultrasound

- 6.1. Introduction. Clinical Ultrasound Indications and Limitations in the Emergency Department
- 6.2. Clinical Ultrasound Utility in Different Acute Abdominal Pain Manifestations
- 6.3. Clinical Ultrasound in Acute Renal Failure and Urological Manifestations
- 6.4. Clinical Ultrasound in Chest Pain and Other Cardiovascular Symptoms (Syncope, Murmur, Electrocardiographic Alterations)
- 6.5. Clinical Ultrasound in Patients with Dyspnea of Uncertain Origin
- 6.6. Clinical Ultrasound in Patient with Edema or Pain in the Lower Limb
- 6.7. Clinical Ultrasound in Patients with Fever without an Apparent Focus
- 6.8. Clinical Ultrasound in Hypotension and Undifferentiated Shock
- 6.9. Ultrasound in Cardiac Arrest and in Advanced Airway Management
- 6.10. Ultrasound in Patients with Polytrauma
- 6.11. Ultrasound-Guided Procedures: Central and Peripheral Venous Access, Arterial Puncture, Pericardiocentesis, Paracentesis, Thoracocentesis, Lumbar Puncture

### Module 7. Clinical Simulation in Emergencies

- 7.1. Basic Principles in Clinical Simulation
- 7.2. Types of Clinical Simulation
- 7.3. The Importance of Communication in Clinical Simulation
- 7.4. Types of Simulators
- 7.5. Briefing and Debriefing
- 7.6. Leadership, Teamwork and Role Distribution
- 7.7. Types of Assessments in Clinical Simulation
- 7.8. Scenario Preparation

### Module 8. Clinical Toxicology in Emergency Services

- 8.1. General Information about Intoxicated Patients
- 8.2. Language and Drugs
- 8.3. New Abused Substances
- 8.4. Chemical Submission
- 8.5. Chemsex or Chemical Sex
- 8.6. Alternative Medicine and Pseudotherapeutic Toxicity
- 8.7. Toxicity: Other Living Beings I
- 8.8. Toxicity: Other Living Beings II
- 8.9. New Antidotes
- 8.10. Organ Donation: Brain Death of Toxic Origin

### Module 9. Special Needs Patients in the Emergency Department

- 9.1. General Management
- 9.2. Specific Management According to Special Needs
- 9.3. Specific Protocols and Tool Use
- 9.4. The Importance of Accompanying Special Needs Patients
- 9.5. Diagnosing Patients with ASD
- 9.6. ASD Severity
- 9.7. Complications in Management
- 9.8. Integrating Special Needs Patient Associations in Emergency Services
- 9.9. Role of Special Needs Patient Family Members in Emergency Services



## Module 10. High-Risk Infectious Diseases (HRID)

- 10.1. Introduction
- 10.2. PPE (Personal Protective Equipment)
- 10.3. Emergency Services Diversification. Emergency Circuits
- 10.4. Health Personnel Training
- 10.5. Emergency Room Drills
- 10.6. Patient Transfer and Transport to High Isolation Units
- 10.7. Onehealth
- 10.8. Respiratory Pathology Action Protocols
- 10.9. Hemorrhagic Fever Action Protocols
- 10.10. Future Threats: How to Prepare

“*A unique, key and decisive academic experience to boost your professional development and consolidate yourself as an emergency physician”*



06

# 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"*



## 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.



07

# Certificate

The Professional Master's Degree in Advanced Urgent Care and Emergency Medicine guarantees you, in addition to the most rigorous and up-to-date training, access to a Professional Master's Degree issued by TECH Technological University.



“

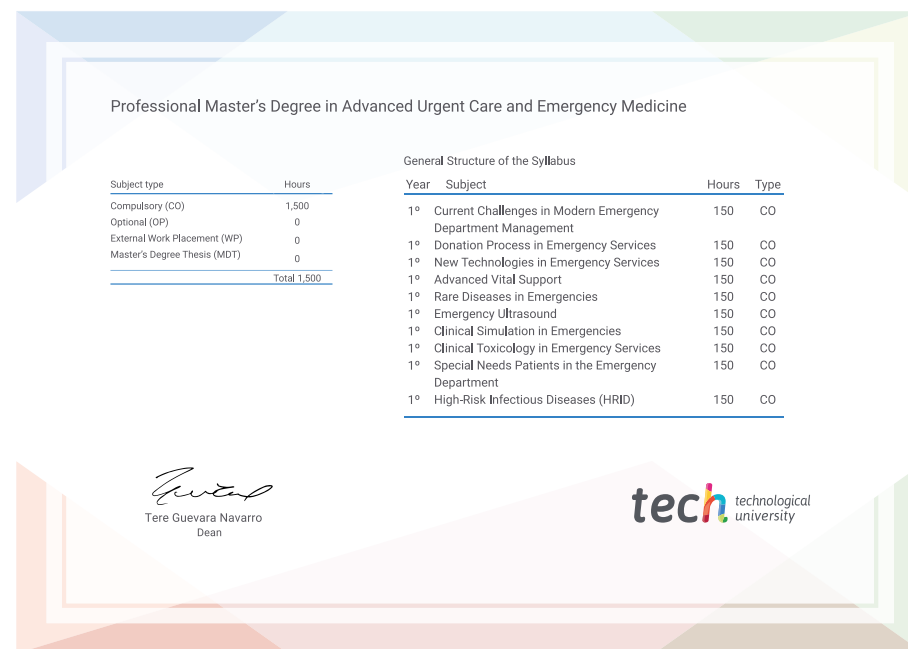
*Successfully complete this program  
and receive your university degree  
without travel or laborious paperwork”*

This **Professional Master's Degree in Advanced Urgent Care and Emergency Medicine** 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 **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The diploma 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 Advanced Urgent Care and Emergency Medicine**  
 Official N° of hours: **1,500 h.**





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personalized service innovation  
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development language  
virtual classroom



**Professional Master's  
Degree**  
Advanced Urgent Care  
and Emergency Medicine

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

# Professional Master's Degree

## Advanced Urgent Care and Emergency Medicine

