

Professional Master's Degree Emergency Medicine





Professional Master's Degree 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-emergency-medicine

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 16

04

Course Management

p. 22

05

Structure and Content

p. 28

06

Methodology

p. 34

07

Certificate

p. 42

01

Introduction

In emergency medical care, the criteria of speed and efficiency take on a new meaning when it comes to adequate patient assessment, knowledge and application of the appropriate procedures, as well as familiarity with the drugs frequently used in critical situations. Healthcare professionals must be fully trained to deal with serious situations, with the aim of providing quality medical care, with rigor and safety for patients. Adequate updating requires a comprehensive approach to techniques, procedures and application regulations, which becomes an essential tool for identifying and dealing with any critical situation, especially in circumstances of special operational difficulty.





“

Keeping knowledge up to date is key to providing safe and efficient patient care in critical situations. Specialize with the most advanced program, which includes the latest developments in coronavirus infections”

Healthcare professionals must be specifically prepared to act in an emergency situation in order to maintain the level of quality and safety in patient care. Adequate updating becomes an indispensable tool to ensure safe and efficient care. They must be prepared to identify and deal with any critical situation they encounter quickly, with full capacity to plan, manage and apply the necessary health resources at the different levels of medical care. This includes patient care processes involving patients with emergency conditions, emergency situations, as well as incidents of special operational difficulty, whether they are the result of an accident with multiple victims, seismic or climatological phenomena, or even war or terrorism.

The medicine applied in emergency situations must also contemplate a wide knowledge of the available means and equipment, their applications and complications, so that they can be used in each specific situation. For this reason, an adequate updating of knowledge requires a comprehensive approach to techniques, procedures and application regulations, a complete and exhaustive training program that becomes an essential tool to identify and deal with any critical situation, especially in circumstances of special operational difficulty.

This includes disaster situations, where material and human resources become insufficient, infrastructures are severely damaged, and the number and severity of patients generate particularly critical situations. These features call for a specific and in-depth approach to management, organization and health care in adverse circumstances. Catastrophic events in the recent past show the importance of having health professionals with specialized training to be able to provide care in particularly serious circumstances.

This program provides students with the knowledge and skills required to provide emergency health care quickly, efficiently and safely. Tools that will allow you to properly assess emergency patients, to know and apply the appropriate procedures in each situation, or to become familiar with the drugs frequently used in critical situations. All this through the most up-to-date training program, including the latest developments in coronavirus infections.

This **Professional Master's Degree in Emergency Medicine** contains the most complete and up-to-date Scientific program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in the field of patient care in accident, emergency and disaster situations
- ♦ 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
- ♦ The latest information on patient care in emergency situations
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ With emphasis on innovative methodologies for patient care in accident, emergency and disaster situations
- ♦ Theoretical lessons, questions for experts, discussion forums on controversial issues and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



Access the most comprehensive program to act in critical situations with the Professional Master's Degree in Emergency Medicine"

“

This Professional Master's Degree is the best investment you can make when choosing a refresher programme to update your existing knowledge of Emergency Medicine"

Its teaching staff includes professionals from the field of medicine, who their work experience to this program, as well as renowned specialists from leading societies 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 an immersive training experience designed to train for real-life situations.

This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise throughout the program. For this purpose, the specialist will be assisted by an innovative interactive video system created by renowned experts in the field of accidents, emergencies and disasters with extensive experience.

We offer you an interactive video system that will make it easier for you to study this Professional Master's Degree.

In our Professional Master's Degree, you will learn the main problems faced by doctors in emergency situations, including the main developments in the diagnosis and treatment of COVID-19.



02

Objectives

The program's primary objective is focused on theoretical and practical learning, so that the physician is able to master, in both a practical and rigorous manner, emergency care techniques.





“

Gain up-to-date knowledge on the latest COVID-19 developments to be able to contribute to decision-making with quality and confidence”



General Objective

- ♦ Gain the necessary up-to-date knowledge of caring for a patient in a serious condition, with the aim of improving the quality and security of your healthcare practice in accident, emergency and disaster situations





Specific Objectives

Module 1. General Aspects

- ◆ Differentiate between the concepts of accidents, emergencies and disasters
- ◆ Identify the fundamentals of emergency health care
- ◆ Apply clinical and non-clinical professional skills in emergencies
- ◆ Define the structure and organization of the accident and emergency services
- ◆ Use medical records in the emergency department and understand the most relevant legal and ethical aspects of health care in emergencies
- ◆ Prioritize, organize and manage patient care in the most efficient way through triage
- ◆ Understand the basic workings of an emergency coordination center

Module 2. Emergency Services and Medical Transport

- ◆ Incorporate the criteria for selecting the most appropriate mode of medical transport in daily practice
- ◆ Describe the main characteristics of medical transport, its pathophysiology and the different EMS transport options
- ◆ Analyze the risk management of transport for patients and staff
- ◆ Identify the equipment and the communication systems in an EMS
- ◆ Describe the concept of continuity of care and hospital transfer

Module 3. Advanced Cardiovascular Support

- ♦ Gain up-to-date knowledge of the process for performing an ECG
- ♦ Interpret electrocardiogram tracing in emergency situations
- ♦ Apply protocols for medical care in cases of heart rhythm alterations
- ♦ Identify the life-threatening pathophysiological processes
- ♦ Describe the different conditions that cause chest pain and apply the appropriate protocols in each case
- ♦ Recognize the different signs and symptoms typical of ischemic heart disease
- ♦ Apply the specific procedures in Acute Coronary Syndrome and assess the possibility of prehospital fibrinolysis
- ♦ Know how to address congestive heart failure and acute pulmonary edema
- ♦ Correctly use non-invasive mechanical ventilation
- ♦ Know how to address cardiac tamponade and pericardial effusion
- ♦ Describe pericardiocentesis and pericardial drainage techniques

Module 4. Cardiovascular Emergencies

- ♦ Establish the diagnosis and management of acute pericarditis and cardiac tamponade
- ♦ Establish the diagnosis and management of acute coronary syndrome
- ♦ Detect urgent patterns in diabetic patients, elderly or dementia patients, as they are paucisymptomatic and this could mask the characteristics of a potentially life-threatening pain

Module 5. Respiratory Emergencies

- ♦ Recognize acute dyspnea and its most frequent causes
- ♦ Establish the diagnostic approach to acute dyspnea in emergency departments
- ♦ Identify the main clinical manifestations of aggravation of acute bronchial asthma crisis
- ♦ Describe the therapeutic behavior in bronchial asthma exacerbations according to their severity

Module 6. Neurological Emergencies

- ♦ Identify cases of encephalic vascular accident (EVA) and provide timely treatment
- ♦ Review the types of studies for the identification of encephalic vascular accident
- ♦ Enable physicians involved in the initial care of EVA to approach a practical and simple way of updated guidance
- ♦ Present an update on current diagnostic methods and the different therapies available, depending on the case of each patient, for acute ischemic stroke

Module 7. Digestive System Emergencies

- ♦ Define the abdominal pain
- ♦ Effective medical history taking for acute gastrointestinal bleeding and vascular disorders
- ♦ Establish procedures to identify acute gastroenteritis
- ♦ Establish protocols for action in acute pancreatitis

Module 8. Endocrine and Metabolic Emergencies

- ♦ Acquire in-depth knowledge of the definition, pathophysiology and classification according to severity of the most frequent endocrinometabolic emergencies
- ♦ Establish diagnosis and apply effective treatment for these emergencies

Module 9. Nephrourological Emergencies

- ♦ Tackle the most common nephrourological diseases and how to approach their diagnosis
- ♦ Establish the types of anticoagulation and thromboprophylaxis to be applied in each case
- ♦ Understand risk exposure and exposure to potentially contaminating materials
- ♦ Delve into sepsis and septic shock

Module 10. Hematological, Immunological and Infectious Emergencies

- ♦ Characterize the main mechanisms in hemostasis to maintain blood flow and the integrity of the vascular system
- ♦ Correlate its two main components: primary hemostasis and secondary hemostasis
- ♦ Identify the most frequent acquired and congenital causes of coagulation disorders
- ♦ Analyze diagnostic criteria and their therapeutic implication when caring for a patient with disseminated intravascular coagulation (DIC) and sepsis

Module 11. Psychiatric Emergencies

- ♦ Understand psychopathology at the prehospital level, as well as the factors that relate to the physician and the patient
- ♦ Approach an urgent case in an efficient way
- ♦ Learn how to conduct a psychiatric clinical interview
- ♦ Describe the different types of psychiatric disorders

Module 12. Ophthalmologic Emergencies

- ♦ Delve into the most common diseases of the eyelids and lacrimal system
- ♦ Address red eye, diagnosis and treatment
- ♦ Know the reasons and treatments for sudden vision loss

Module 13. Otolaryngological Emergencies

- ♦ Review the anatomy of the external auditory canal
- ♦ Establish clinical and diagnostic classifications, as well as referral criteria
- ♦ Treat foreign bodies in the nasal cavity and/or pharynx

Module 14. Toxicology Emergencies

- ♦ Establish the general aspects of the intoxicated patient, as well as their protocols of action
- ♦ Know the most frequent types of intoxications: drugs, mushrooms, medicinal, domestic

Module 15. Terminally Ill Patients in Emergencies

- ♦ Define the urgent complications in the terminally ill patient
- ♦ Provide end-of-life care
- ♦ Provide dermatological care in emergencies
- ♦ Delve into organ and tissue donation and discuss the approach with the patient and family members

Module 16. Obstetric Emergencies

- ♦ Detail the generalities of gynecologic bleeding, abnormal uterine bleeding and dysfunctional uterine bleeding. Outline aspects related to the types and classification
- ♦ Describe the characteristics in the diagnosis and treatment of dysfunctional uterine bleeding

Module 17. Pediatric Accidents and Emergencies

- ♦ Identify the most common gynecological-obstetric conditions in emergency care and state the precise guidelines to correctly resolve each case
- ♦ Review the main aspects of childbirth care, previous care, basic techniques of assistance, types of presentations, and dilatation, expulsion and delivery timings
- ♦ Identify the skills needed to deliver a baby in the out-of-hospital setting
- ♦ Identify the different emergencies in the pediatric unit
- ♦ Highlight the priority actions in emergency pediatric situations
- ♦ Understand the medical-legal documents and how to act in situations of gender violence and child abuse

Module 18. Severe Trauma Care

- ♦ Identify the different traumatology conditions in emergency situations
- ♦ Describe the action of health professionals in different types of traumas and their correct usage
- ♦ Specify the priority actions to be taken in polytraumatized patients
- ♦ Select the best option when mobilizing and immobilizing a trauma patient
- ♦ Use general procedures and techniques applied to critical patients in emergency situations

Module 19. Multiple Casualty Incidents (MCI and Disasters

- ♦ Organize material and human healthcare resources in multiple casualty incidents and disasters
- ♦ Implement disaster action plans with certainty
- ♦ Establish the criteria and guidelines for appropriate and efficient communication between the various agents involved in the emergency and critical care systems

Module 20. Diagnostic and Therapeutic Techniques

- ♦ Know the main consequences and initial handling of CBRN (Chemical Biological Radiological Nuclear) risk situations
- ♦ Explain new forms of bioterrorism
- ♦ Implement techniques for teamwork, motivation, leadership and dealing with uncertainty in situations

Module 21. Emergency Pharmacology

- ♦ Gain up-to-date knowledge of the procedures for the use of drugs frequently used in emergency medicine
- ♦ Identify the main emergency immunological pathologies and gain up-to-date knowledge of how to treat patients suffering from anaphylactic reactions
- ♦ Acquire up-to-date knowledge on how to care for intoxicated patients and injuries caused by environmental agents



Module 22. Other important aspects in emergencies

- ◆ Develop assertive communication skills for emergencies
- ◆ Provide patient safety
- ◆ Understand the new skills for professionals in the field of emergencies

Module 23. Update on Coronavirus Infections

- ◆ Know the microbiological characteristics of coronaviruses
- ◆ Know how to assess the morbidity and mortality of coronavirus infections
- ◆ Identify the main risk groups and mechanisms of coronaviruses
- ◆ Be able to perform the necessary tests for diagnosing Coronavirus
- ◆ Know how to apply the necessary preventive measures, as well as the most accurate treatments according to the type of patient

“

Train yourself for success with the help of this Professional Master's Degree in Emergency Medicine Your achievements will become your patients' achievements as well"

03 Skills

After passing the assessments on the Professional Master's Degree in Emergency Medicine, the physician will have acquired the professional skills required for quality, up-to-date practice based on the most recent scientific evidence.





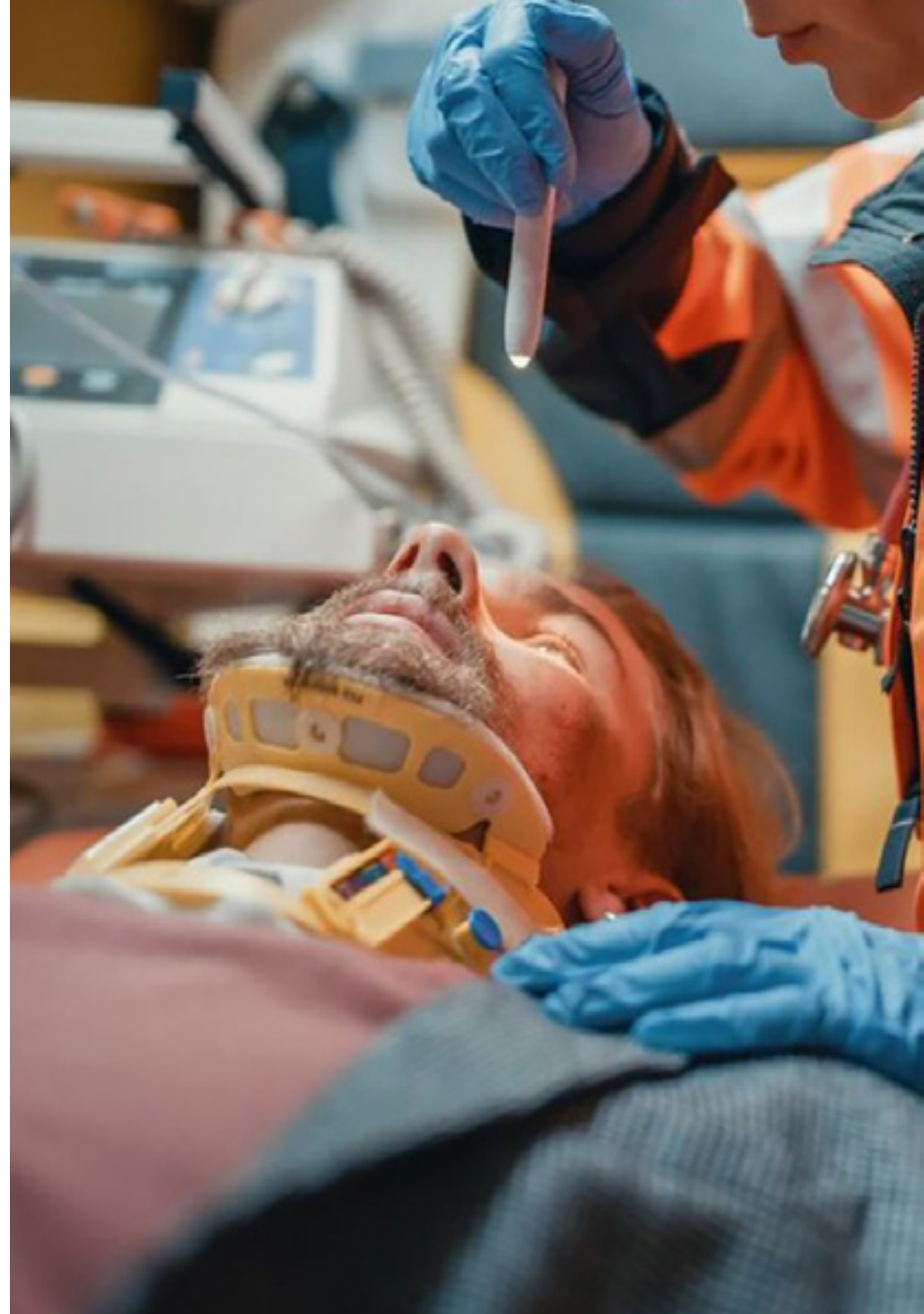
“

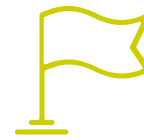
With this program you will be able to master the new diagnostic and treatment procedures for patients in an emergency situation"



General Skills

- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
- ♦ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ♦ Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner





Specific Skills

- ♦ Manage emergency health care at an advanced level and in critical situations, collaborating with other professionals and providing an appropriate response for the public
- ♦ Adopt attitudes in accordance with the Medical Code of Ethics in health care, both in ethical decision-making and its application
- ♦ 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 the professional field
- ♦ Recognize and distinguish between different accident, emergency and disaster situations
- ♦ Plan integral health care management in the process of care and recovery of critically ill patients
- ♦ Prioritize situations, resolve problems and make decisions when caring for patients in critical or emergency situations
- ♦ Provide quality medical care to patients with various conditions and health problems which affect a variety of organs and systems in the body
- ♦ Analyze and interpret scientific information and draw conclusions from scientific results
- ♦ Provide comprehensive care to the person, to solve the health problems that affect them at the time of the emergency and in the immediate future, either individually or as members of a multidisciplinary team
- ♦ Understand and apply different strategies that allow an effective therapeutic relationship with patients and their family members to be established. This will help them to cope more effectively with emergency situations

- ♦ Assess the risks and avoid problems associated with medical transport of a patient in a serious condition
- ♦ Successfully resolve emergency situations by selecting the most appropriate means of medical transport based on stage of development, environment, time and available resources
- ♦ Effectively implement the correct techniques, protocols and treatments in the field of basic and advanced cardiopulmonary resuscitation, in all age groups
- ♦ Interpret the electrocardiographic tracing in rhythm disturbances, cardiac arrest and cardiovascular processes related to cardiac perfusion
- ♦ Distinguish the different emergency pathological processes in adults and children
- ♦ Provide quality medical care to patients with various conditions and emergency health problems which affect a variety of organs and systems in the body
- ♦ Understand and implement primary and secondary examination techniques of a polytraumatized patient, as well as adapting the protocols to give advanced life support
- ♦ Lead in the organization and management of a MCI or disaster
- ♦ Prevent risks related to incidents of CBRN and take all the necessary precautions when dealing with such incidents
- ♦ Through your work within a multidisciplinary team, contribute to the process of organ and tissue donation





- ◆ Safely and confidently use diagnostic aids characterized by complex technology
- ◆ Use web resources and ICT for personal and professional use
- ◆ Manage healthcare resources with efficiency and quality criteria
- ◆ Work as part of a team providing expert knowledge in the field of emergency care
- ◆ Work with patients that have been diagnosed with or present symptoms of coronavirus, complying with all safety measures
- ◆ Perform diagnostic tests to detect possible cases of coronavirus

“*If you're looking for a high level training course that helps you carry out your work with quality and security, this is your best option”*

04

Course Management

The program includes renowned experts in Emergency Care in its teaching staff, who contribute their work experience to this program. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.





“

Leading professionals in the field have come together to teach you the latest advances in Emergency Medicine”

International Guest Director

Dr. Fadi Salah Issa has become one of the world's leading experts in the field of **Emergency Medicine**. For more than 20 years he has developed a tireless work in this subspecialty of **Urgencies and Emergencies**.

A work that starts from his performance as an emergency physician at the **King Faisal Specialist Hospital & Research Centre**, where he implemented a new system and rapid care facility that reduced waiting times for patients. This allowed him to improve care and more efficiently handle complex cases of oncology, transplant patients and congenital diseases. Thanks to his deep interest in providing the best healthcare response to disaster situations, Salah Issa has turned his efforts to academia and research, promoting specialized and continuous education for medical professionals.

In this regard, he is the **Director of Education for the Disaster Medicine Fellowship** at the BMC Medical Harvard Medical School. A role that joins the co-supervision of the European Disaster Medicine Thesis Board at the University of Eastern Piedmont. His impact in this area has been positive, contributing to the better preparation of health workers. In addition, his concern for humanitarian work has led him to become involved in the **World Association of Disaster and Emergency Medicine (WADEM)**, where he serves as chairman of the special interest group against terrorism.

In this line, his scientific studies also include his analysis of **attacks on educational institutions**, the prevention of post-traumatic stress and the promotion of the resilience of healthcare personnel in the face of COVID-19, **anti-terrorist medicine** and the analysis of variability in the training of expatriate pre-hospital providers in Bahrain



Dr. Salah Issa, Fadi

- Emergency Physician specialized in Emergency Medicine
- Co-supervisor of the European Disaster Medicine Thesis Board at the University of Eastern Piedmont
- Director of Education for the BIMC Disaster Medicine Fellowship at Harvard Medical School BIMC Physicians
- Director of Disaster Preparedness Education Initiatives at Harvard Medical School BIDMC Physicians
- Research Fellowship in Disaster Medicine at Harvard Medical School
- Emergency Physician at King Faisal Specialist Hospital & Research Centre
- Team Leader and Emergency Physician at Armed Forces Hospitals-Southern Region, Khamis Mushayt, KSA
- Bachelor of Medicine and Surgery, University of Medicine and Pharmacology, Cariova, Romania
- Disaster Medicine and Emergency Management from Harvard Medical School Medical Doctors in BIDMC
- Master's Degree in Disaster Medicine from the University of Piemonte Orientale, Italy
- Chairman of the Counterterrorism Special Interest Group of the World Association of Disaster and Emergency Medicine (WADEM)
- Fellow of the Academy of Harvard Medical School



Thanks to TECH you will be able to learn with the best professionals in the world"

Guest Directors



Dr. Rivera Núñez, María Angélica

- ♦ Assistant Coordinator of the Emergency Department La Paz University Hospital
- ♦ Medical Surgeon Specialist in Internal Medicine
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Diploma in Clinical Teaching - Teacher Training Unit Pontificia Catholic University in Chile
- ♦ Certificate in Emergency Medicine (CME)
- ♦ Training in Thrombotic Pathology Faculty of Medicine, University of Navarra
- ♦ Instructor of Advanced Life Support National Cardiopulmonary Resuscitation Plan of the Spanish Society of Intensive Care Medicine, Critical Care and Coronary Units
- ♦ Director of Patient Safety in the Emergency Department of La Paz University Hospital



Dr. Calvín García, María Elena

- ♦ Attending and Clinical Supervisor of the Emergency Department of 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. Torres Santos-Olmo, Rosario María

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

Management



Dr. Roig D'Cunha-Kamath, Francisco Vicente

- ◆ Degree in Medicine from the University of Valencia
- ◆ Specialist via MIR in Family and Community Medicine
- ◆ Assistant Physician of the Emergency Medicine Department at the Clinical University Hospital of Valencia
- ◆ Professor of Human Anatomy at the European University of Valencia
- ◆ Physician at the Valencia Health and Community Foundation
- ◆ Doctor for the ASCIRES group

Professors

Dr. Brasó Aznar, José Vicente

- ◆ Hospital Emergency Physician
- ◆ Associate Professor of Emergency Medicine at the Faculty of Medicine of the University of Valencia
- ◆ Head of Department Emergency Medicine. Ribera University Hospital

Dr. Martín Quirós, Alejandro

- ◆ Assistant Physician of the High Level Isolation Unit, La Paz University Hospital
- ◆ PhD in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Masters in Infectious Diseases and Antimicrobial Treatment
- ◆ Master's Degree in Research Methodology in Health Sciences
- ◆ Expert in Emergency Medicine
- ◆ Expert in Community-Acquired and Nosocomial Infections
- ◆ Course Teacher of Cardiopulmonary Resuscitation in the Spanish Society of Emergency Medicine (SEMES)
- ◆ Lecturer in Immediate Life Support Course at the Health Council of the Community of Madrid



Dr. Maroun Eid, Charbel

- ◆ Collaborative Researcher in R&D Center of the Research Institute of the La Paz Hospital
- ◆ PhD in Biomedical Sciences from the UAM
- ◆ Executive MBA in the pharmaceutical industry and biotechnology
- ◆ Master's Degree in Cardiovascular Risk Prevention
- ◆ Assistant Emergency Physician at Infanta Sofia University Hospital
- ◆ Family and Community Medicine Resident Physician in San Carlos Clinical Hospital
- ◆ Lecturer of Critical Patients and Emergency Medicine course at Autonomous University of Madrid
- ◆ Lecturer of Emergency Medicine at La Paz Hospital

“

Take the step to get up-to-date on the latest developments in care for patients in a life-threatening situation”

05

Structure and Content

The structure of the syllabus has been designed by a team of professionals with knowledge of the implications of medical training in the approach to patients with emergency conditions, who are aware of the relevance in the up-to-date specialization, and are committed to quality teaching using new educational technologies.





“

A comprehensive teaching program, structured in well-developed teaching units, oriented towards efficient and swift learning. Additionally, the latest developments on Covid-19 are included”

Module 1. General Aspects

- 1.1. Definitions and Concepts
- 1.2. Comprehensive Study of Healthcare Emergencies
- 1.3. Bioethics and Legislation in Emergency Medicine and Emergencies
- 1.4. Bioethics
- 1.5. Legislation

Module 2. Emergency Services and Medical Transport

- 2.1. Organization of Emergency Medical Systems
- 2.2. Coordination and Health Regulation
- 2.3. Information and Record Systems
- 2.4. Types of Medical Transport
 - 2.4.1. Intrahospital Transport
 - 2.4.2. Interhospital Transport
 - 2.4.3. Ground Medical Transport
 - 2.4.4. Air Medical Transport
- 2.5. Types of Out-of-Hospital Health Resources
- 2.6. Pathophysiology of Medical Transport and Transfer Positions
- 2.7. Patient Transfer: Models

Module 3. Advanced Cardiovascular Support

- 3.1. Basic Life Support in Adults
 - 3.1.1. General Aspects
- 3.2. Advanced Life Support in Adults
 - 3.2.1. Action in Response to Bradyarrhythmias
 - 3.2.2. Action in Response to Tachyarrhythmias
- 3.3. Basic Pediatric Life Support
- 3.4. Advanced Pediatric and Neonatal Life Support
 - 3.4.1. Recognition and Management of Critically Ill Children
 - 3.4.2. Advanced Airway Management
 - 3.4.3. Basics of Mechanical Ventilation in Pediatrics
 - 3.4.4. Infusion Routes and Drugs in Pediatric CPR
 - 3.4.5. Pediatric AVS Algorithms and Arrhythmia Treatment

- 3.5. Neonatal Resuscitation
 - 3.5.1. Post-Resuscitation Stabilization and Neonatal Transport
- 3.6. Advanced Life Support in Serious Trauma Patients
- 3.7. Advanced Life Support in Special Cases

Module 4. Cardiovascular Emergencies

- 4.1. Arrhythmias
- 4.2. Syncope
- 4.3. Acute Chest Pain
- 4.4. Acute Heart Failure
- 4.5. Pericarditis, Cardiac Tamponade
- 4.6. Heart Failure
- 4.7. Acute Pulmonary Edema
- 4.8. Deep Vein Thrombosis (DVT)
- 4.9. Pulmonary Thromboembolism (PTE)
- 4.10. Aortic Dissection
- 4.11. Hypertensive Emergencies
- 4.12. Shock

Module 5. Respiratory Emergencies

- 5.1. Respiratory Emergencies
- 5.2. Pneumonia
- 5.3. COPD Exacerbation
- 5.4. Pleuritis and Pleural Effusion
- 5.5. Pneumothorax
- 5.6. Hemoptysis

Module 6. Neurological Emergencies

- 6.1. Neurological Assessment of a Critically Ill Patient
- 6.2. Vascular Disorders, Code Stroke
- 6.3. Disorders of Consciousness
- 6.4. Intracranial Hypertension
- 6.5. Central Nervous System Infections
- 6.6. Seizures and Status Epilepticus
- 6.7. Headaches
- 6.8. Vertiginous Syndrome (Vertigo)

Module 7. Digestive System Emergencies

- 7.1. Acute Abdominal Pain
- 7.2. Acute Gastrointestinal Hemorrhage and Vascular Disorders
- 7.3. Intestinal Obstruction
- 7.4. Acute Gastroenteritis
- 7.5. Acute Pancreatitis
- 7.6. Acute Biliary Disease
- 7.7. Acute Anal Disease

Module 8. Endocrine and Metabolic Emergencies

- 8.1. Glucose Metabolism Disorders
- 8.2. Thyroid Emergencies
- 8.3. Acid-Base Balance Disorders
- 8.4. Water Balance Disorders
- 8.5. Electrolyte Balance Disorders

Module 9. Nephrourological Emergencies

- 9.1. Nephrourological Emergencies
- 9.2. Renal and Excretory System Lithiasis
- 9.3. Urinary Retention
- 9.4. Urinary Tract Infections
- 9.5. Acute Renal Failure
- 9.6. Hematuria
- 9.7. Acute Scrotal Syndrome
- 9.8. Urethral Pathology

Module 10. Hematological, Immunological and Infectious Emergencies

- 10.1. Hemotherapy
- 10.2. Thrombopenia
- 10.3. Anticoagulation and Thromboprophylaxis
- 10.4. Allergies and Anaphylactic Reactions
- 10.5. Risk Exposure and Exposure to Potentially Harmful Material
- 10.6. Fever of Unknown Origin
- 10.7. Sepsis and Septic Shock

Module 11. Psychiatric Emergencies

- 11.1. Psychopathology
- 11.2. Psychomotor Agitation
- 11.3. Acute Alcoholic Disease
- 11.4. Self-Harm Attempt
- 11.5. Anxiety Attack
- 11.6. Neuroleptic Malignant Syndrome

Module 12. Ophthalmologic Emergencies

- 12.1. Eyelid and Lacrimal System Diseases
- 12.2. Pink Eye
- 12.3. Sudden Loss of Vision
- 12.4. Eye Injuries

Module 13. Otolaryngological Emergencies

- 13.1. Infectious Processes in ENT
- 13.2. Foreign Objects in ENT
- 13.3. Epistaxis
- 13.4. Sudden Loss of Hearing

Module 14. Toxicology Emergencies

- 14.1. General Aspects of an Intoxicated Patient
- 14.2. Most Common Intoxications

Module 15. Terminally Ill Patients in Emergencies

- 15.1. Emergency Complications in Terminal Patients
- 15.2. Attention to the Situation in the Last Few Days of a Terminal Patient's Life
- 15.3. Dermatology in Emergencies
- 15.4. Organ and Tissue Donation

Module 16. Obstetric Emergencies

- 16.1. Inflammatory and Infectious Disorders and Other Emergencies
- 16.2. Gynecological Hemorrhage
- 16.3. Pregnancy and Postpartum Emergencies
- 16.4. Emergency Delivery Assistance
- 16.5. Sexual Abuse

Module 17. Pediatric Emergencies

- 17.1. Infantile Colic
- 17.2. Febrile Syndrome
- 17.3. Seizures
- 17.4. Airway Anatomy
- 17.5. Exanthematous Diseases
- 17.6. Digestive Pathology
- 17.7. Child Abuse
- 17.8. Transport of Critical Pediatric Patients

Module 18. Severe Trauma Care

- 18.1. General Aspects
- 18.2. Biomechanics of Accidents
- 18.3. Primary and Secondary Assessment
- 18.4. TBI
- 18.5. Thoracic Trauma
- 18.6. Abdominal Trauma
- 18.7. Vertebral Trauma and Spinal Cord Injury
- 18.8. Trauma of the Locomotor System
- 18.9. Injuries
- 18.10. Hypovolemic Shock
- 18.11. Pediatric Trauma
- 18.12. Trauma During Pregnancy
- 18.13. Special Traumas
- 18.14. Injuries due to Physical and Environmental Agents
- 18.15. Bites and Stings
- 18.16. Analgesia and Sedation
- 18.17. Mobilization and Immobilization: Materials and Techniques
- 18.18. Rescue and Medical Care in Confined and Remote Places

Module 19. Multiple-Victim Incidents (MVIs) and Disasters

- 19.1. General Aspects
- 19.2. MVI Management and Disasters
- 19.3. Sectorization
- 19.4. Deployment and Logistics
- 19.5. Triage
- 19.6. Multiple Victim Care
- 19.7. Evacuation
- 19.8. MVI Management in a Hospital
- 19.9. CBRN Incidents
- 19.10. Emergency Planning

Module 20. Diagnostic and Therapeutic Techniques

- 20.1. Probes
- 20.2. Peripheral and Central Vein Cannulation
- 20.3. Intraosseous Route
- 20.4. IOT
- 20.5. Difficult Airway
- 20.6. Invasive Mechanical Ventilation
- 20.7. Use of Non-Invasive Mechanical Ventilation
- 20.8. Pericardiocentesis
- 20.9. Thoracentesis and Pleural Drainages
- 20.10. Emergency Department Ultrasonography
- 20.11. Electrical Therapy
- 20.12. Monitoring of Hemodynamic Status and Electrocardiography
- 20.13. Capnography and Pulse Oximetry
- 20.14. Oxygen Therapy
- 20.15. Monitoring of Neurological Status
- 20.16. Monitoring of Sedoanalgesia
- 20.17. Collecting Analytical Samples
- 20.18. Frequently Used Scales in Accident and Emergency Medicine
- 20.19. Physiological Parameters in Adults and Children

Module 21. Emergency Pharmacology

- 21.1. Basic Concepts
- 21.2. Drug Administration Routes in Accidents and Emergencies
- 21.3. Drug Administration Safety
- 21.4. Fluid Therapy
- 21.5. Most Common Drugs Used in Accident and Emergency Care
- 21.6. Formulas and Dosage Calculation

Module 22. Other Important Aspects in Emergencies

- 22.1. Communication Skills in Emergencies
- 22.2. Patient Safety
- 22.3. New Professional Skills in Accident and Emergency Care
- 22.4. New Technologies in Accident and Emergency Care

Module 23. Update on Coronavirus Infections

- 23.1. Discovery and Evolution of Coronaviruses
- 23.2. Main Microbiological characteristics and Members of the Coronavirus Family
- 23.3. Epidemiological Changes in Coronavirus Infections from its Discovery to the Present
- 23.4. The Immune System and Coronavirus Infections
- 23.5. Pathogenesis and Pathophysiology of Coronavirus Infections
- 23.6. Risk Groups and Transmission Mechanisms of Coronaviruses
- 23.7. Natural History of Coronavirus Infections
- 23.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections
- 23.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling
- 23.10. Up-to-Date Management of Coronavirus Infections
- 23.11. Future Challenges in the Prevention, Diagnosis, and Treatment of Coronavirus

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.

“

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 Emergency Medicine guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree diploma issued by TECH Technological University.





“

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

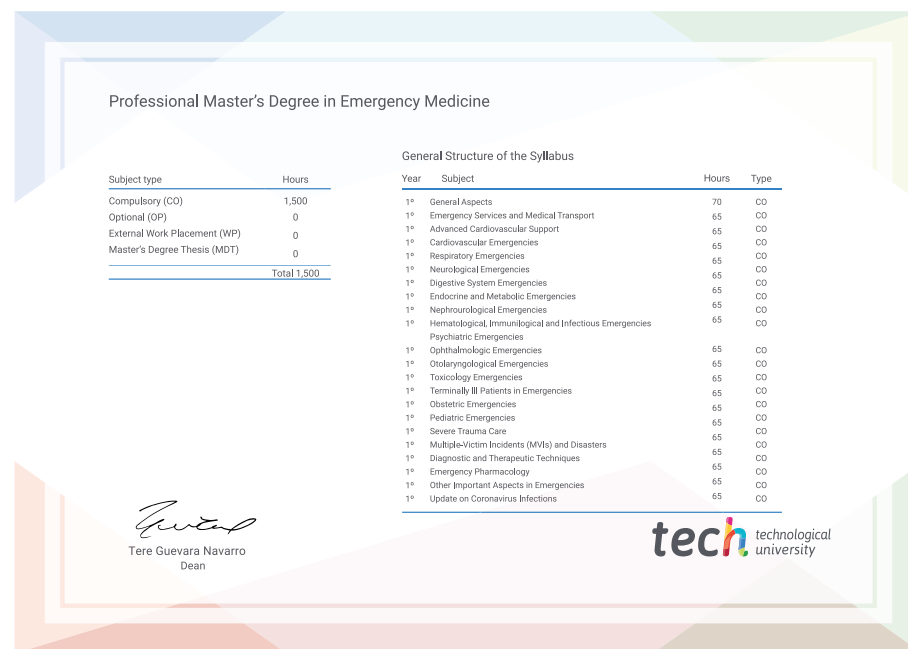
This **Professional Master's Degree in Emergency Medicine** contains the most complete and up-to-date scientific on the market.

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 Emergency Medicine**

Official N° of hours: **1,500 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.



Professional Master's Degree 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

Emergency Medicine

