

# Professional Master's Degree

## Emergency Nursing





## Professional Master's Degree Emergency Nursing

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/nursing/professional-master-degree/master-emergency-nursing](http://www.techtitute.com/us/nursing/professional-master-degree/master-emergency-nursing)

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# 01

# Introduction

Health professionals play a key role in caring for patients with emergency medical conditions or in emergency situations, and ensuring levels of quality and safety. An appropriate refresher course for professionals who work in accident and emergency care is vital in order to guarantee the best care both in hospital as well as outside of the hospital.





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*New scenarios in Emergency Nursing push us to propose new educational programs that meet the real needs of experienced professionals, so that they can incorporate new advances into their daily practice”*

Industrialization and technological development increase the probability of these disasters occurring. Terrorism, armed conflicts and seismic and climatological phenomena claim thousands of victims around the world every year.

In a disaster situation, material and human resources are insufficient, infrastructures are destroyed or seriously damaged etc. All this calls for a targeted and in-depth approach to the management, organization and provision of healthcare in the event of disasters. The most recent catastrophic events: the New York attacks of 9/11 in 2001, the tsunami in Southeast Asia in December 2004, the earthquake and tsunami in Japan in March 2011, etc. demonstrate the need to rely on health professionals with specialized training and expertise. In these circumstances, these professionals need to be able to provide assistance to all the people affected by these situations.

The sick or injured person in need of urgent or emergency care presents acute symptoms, in various forms, which change and evolve in a short period of time. They could be fighting for their lives, depending on which organs are affected, and they may need rapid response care. It is vital they receive specific assistance and care which can only be offered by qualified and specialized professionals, with the specific skills and knowledge required.

Emergency nurses should also have broad knowledge of the resources and equipment available, as well as their uses and drawbacks, so that they can be used in each specific situation.

It is clear that the health system must guarantee that there are trained professionals to meet this demand, and this is not possible if specific professional development is not provided. Therefore, through our specialized program, we are obliged to offer our users all possible resources to reach a high skill level and provide high-quality care.

This **Professional Master's Degree in Emergency Nursing** contains the most complete and up-to-date program on the market. The most important features 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 situations of accidents, emergencies and disasters.
- ♦ Practical exercises where self-assessment can be undertaken to improve learning
- ♦ With emphasis on innovative methodologies for patient care in accident, emergency and disaster situations.
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Improve the care of your patients with professional development offered by the Professional Master's Degree in Emergency Nursing"*

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

The teaching staff includes nursing professionals who bring their experience to this Professional Master's Degree, 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 education experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the nurse 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 program professionals will learn about the main problems faced by nurses 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 nurses are able to master emergency care, in both a practical and rigorous manner.





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*Gain up-to-date knowledge of the main developments with regard to COVID-19 to be able to make effective and safe decisions.*



## General Objective

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- Gain essential and up-to-date knowledge for the care of patients in a serious condition, with the aim of providing exceptional and safe healthcare in accident, emergency and disaster situations.

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*Take the next step to get up to date on the latest developments in Emergency Nursing”*





## Specific Objectives

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### 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.

### Module 2. Hospital Emergency Services.

- ♦ Prioritize, organize and manage patient care in the most efficient way through triage.
- ♦ Understand the basic workings of an emergency coordination center.
- ♦ Incorporate the criteria for selecting the most appropriate mode of medical transport in daily practice.

### Module 3. Emergency Services and Healthcare Transport

- ♦ 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.
- ♦ Apply up-to-date basic and advanced CPR techniques for all ages.

### Module 4. Life Support.

- ♦ Gain up-to-date understanding of the procedures for the use of an automated external defibrillator.
- ♦ Describe and apply the procedures for neonatal resuscitation.
- ♦ Gain up-to-date knowledge of the process for performing an ECG.
- ♦ Interpret the electrocardiogram tracing in emergency situations.

### Module 5. Medical-Surgical Emergencies in Adults (I)

- ♦ 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.

### Module 6. Medical-Surgical Emergencies in Adults (II)

- ♦ 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

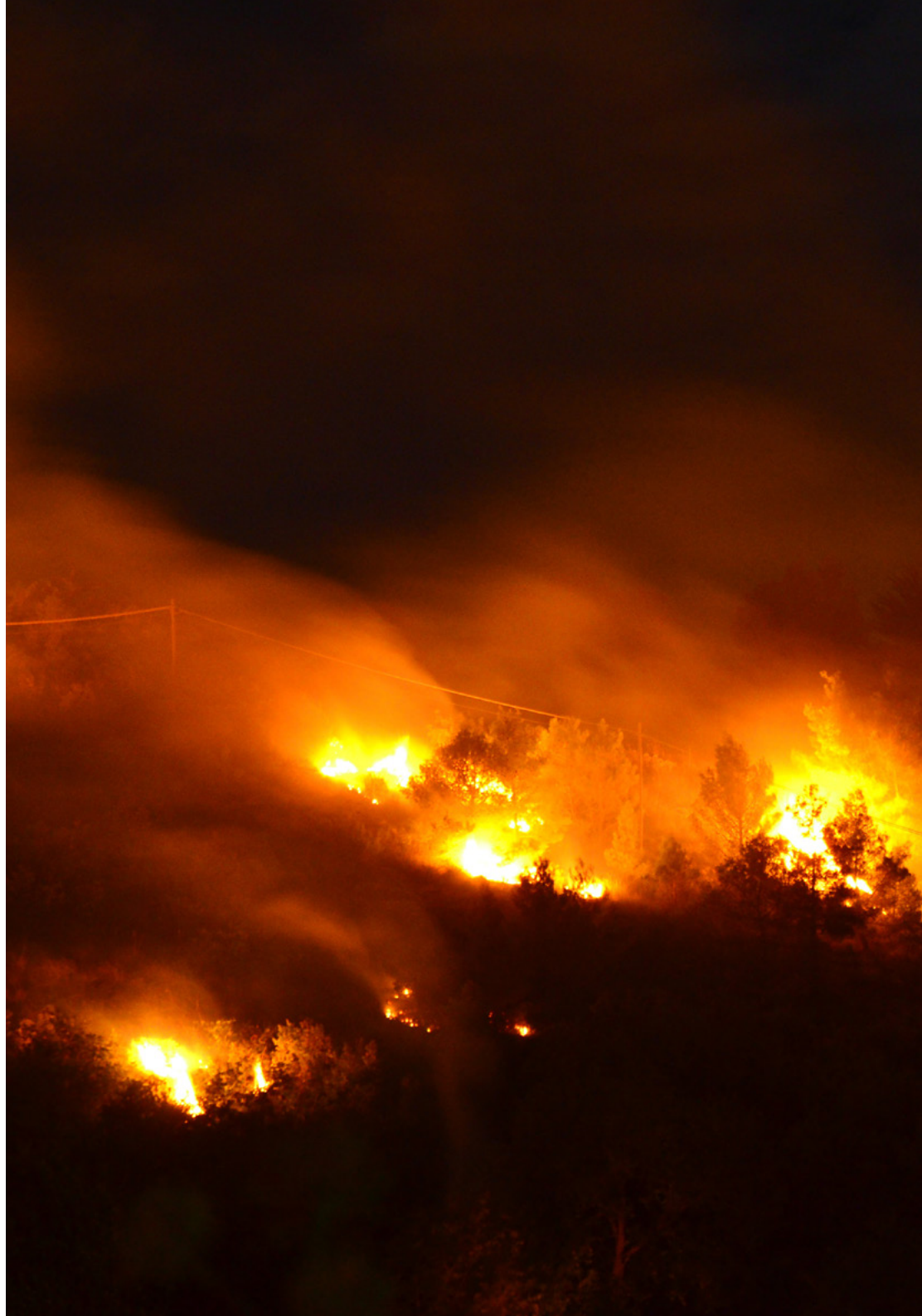
- ♦ Describe pericardiocentesis and pericardial drainage techniques.

### Module 7. Other Emergencies

- ♦ Identify the behavior of a patient with dyspnea in the emergency room.
- ♦ Gain up-to-date knowledge of processes for addressing an asthmatic patient, bronchospasm, and exacerbation of chronic obstructive pulmonary disease.
- ♦ Recognise the symptoms of the main acute vascular disorders.
- ♦ Treat a patient with suspected aortic dissection.
- ♦ 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.
- ♦ Gain up-to-date understanding of the procedures for dealing with terminal patients.
- ♦ Understand the medical-legal documents and how to act in situations of gender violence and child abuse.
- ♦ Identify the main emergency neurological disorders.
- ♦ Describe the out-of-hospital care for neurological vascular disorders and code stroke.

### Module 8. Adult and Pediatric Severe Trauma Care.

- ♦ Identify the different traumatology conditions in emergency situations.
- ♦ Describe the healthcare procedures for different types of traumas and their correct application.
- ♦ Specify the priority actions to be taken in polytraumatized patients.
- ♦ Select the best option when mobilizing and immobilizing a trauma patient.



**Module 9. Mass Casualty Incidents and Disasters.**

- ♦ Organize material and human healthcare resources in multiple casualty incidents and disasters.
- ♦ Implement disaster action plans with certainty.
- ♦ Know the main consequences and initial handling of CBRN (Chemical Biological Radiological Nuclear) risk situations.
- ♦ Explain new forms of bioterrorism.
- ♦ Establish the criteria and guidelines for appropriate and efficient communication between the various agents involved in the emergency and critical care systems.
- ♦ Implement techniques for teamwork, motivation, leadership and dealing with uncertainty in situations.

**Module 10. Pharmacology of Accidents and Emergencies**

- ♦ Gain up-to-date knowledge of the procedures for the use of drugs frequently used in emergency medicine.
- ♦ Identify the different groups of antiarrhythmic drugs.
- ♦ Describe the main pharmacokinetic and pharmacodynamic characteristics of the constituent drugs, taking into account adverse reactions and toxic effects.
- ♦ Learn about and acquire skills in the different forms of preparation and administration of this type of drug, taking into account dosage, dilution, stability and compatibility.

**Module 11. Diagnostic and Therapeutic Techniques in Accident and Emergency Care**

- ♦ Gain up-to-date knowledge of the procedures for immediate action in cases of syncope, acute confusional syndrome, headache, coma and vertigo.
- ♦ Differentiate the main causes of acute abdomen and how to manage acute abdominal pain.

- ♦ Recognize the principal pathologies of the gastrointestinal tract and the related consequences.
- ♦ Understand the fundamental alterations of glycemetic metabolism.
- ♦ Understand the main consequences of electrolyte alterations.
- ♦ Describe the main acute ENT and ophthalmologic diseases.
- ♦ Adequately resolve a psychomotor agitation crisis.
- ♦ Categorize the risk of a self-harm attempt.

**Module 12. Other important Aspects in Caring for a Critically Ill Patient.**

- ♦ 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.
- ♦ Use general procedures and techniques applicable to critical patients in emergency situations.

**Module 13. 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

# 03 Skills

After passing the assessments on the Professional Master's Degree in Emergency Nursing, the nurse will have acquired the necessary professional skills for high-quality, up-to-date practice based on the latest scientific findings.





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



## General Skills

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- ♦ Possess and understand knowledge that allows originality 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
- ♦ Consolidate knowledge and face the complexity of making decisions based on incomplete or limited information, keeping in mind the social and ethical responsibilities linked to the application of knowledge and judgements
- ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialist and non-specialist audiences in a clear and unambiguous way
- ♦ Acquire study skills that will enable further study in a largely self-directed or autonomous manner



## Specific Skills

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- ♦ 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 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.
- ♦ Recognise 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
- ♦ Relate the main aspects of current health legislation to the care of a critically ill patient
- ♦ Prioritize situations, resolve problems and make decisions when caring for patients in critical or emergency situations
- ♦ 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 mass casualty incident (MCI) or disaster
- ◆ Prevent risks related to Chemical Biological Radiological Nuclear (CBRN) incidents 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 program that helps you work effectively and safely, this is your best option"*

04

# Course Management

The teaching staff for this program includes renowned experts in Emergency Nursing, who contribute their professional experience to this program. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.





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

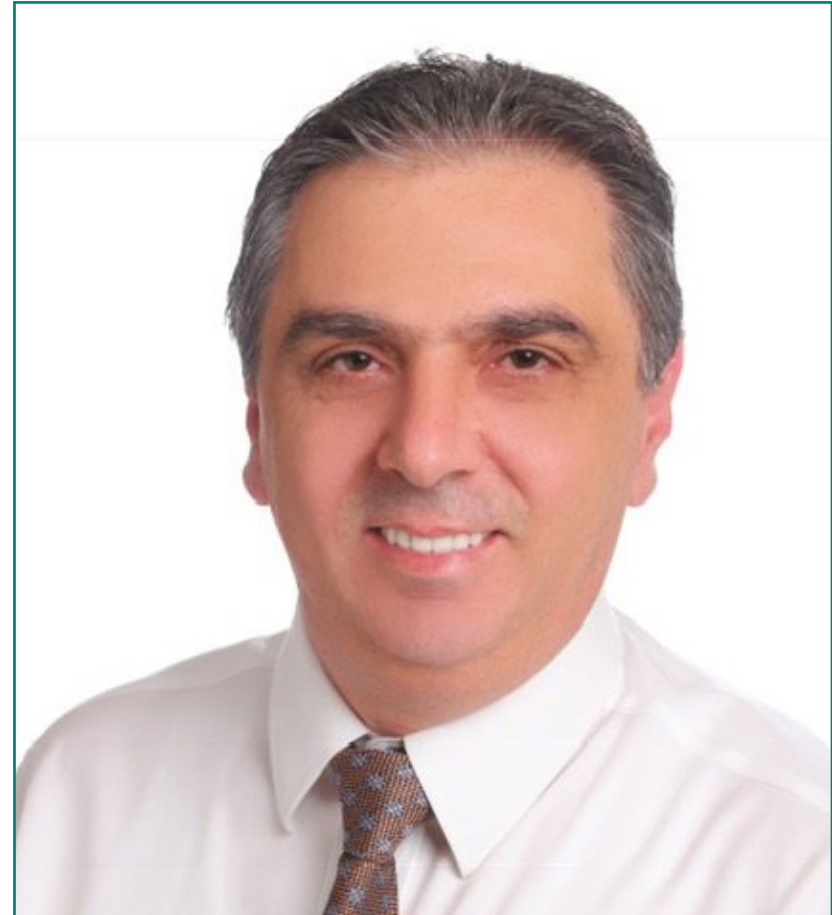
## Directeur invité international

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 **BIMC 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

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- 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

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

## Guest Directors



### **Ruiz López, Daniel**

- ♦ Nursing Supervisor in the Adult Emergency Department of the Hospital Universitario La Paz (Madrid)
- ♦ Diploma in Nursing (DUE)), University School of Nursing, Cordoba
- ♦ Master's Degree in Nursing Management. Cardenal Herrera University
- ♦ University Expert in Nursing in the Hospital Emergency Department. Cardenal Herrera University
- ♦ University Expert in Management Skills for Nursing. Cardenal Herrera University
- ♦ University Expert in Quality Management for Nursing. Cardenal Herrera University
- ♦ University Expert in Management and Services Supervision for Nursing. Cardenal Herrera University
- ♦ University Expert in Direction and Management of Health Services for Nurses. Cardenal Herrera University
- ♦ Training Course for Trainers and Auditors in Triage Manchester. Spanish Triage Group



### **Ms. Souto Novas, Ana María**

- ♦ Emergency Supervisor at La Paz University Hospital
- ♦ University Diploma in Nursing from the Universidad Pontificia of Salamanca
- ♦ Master's Degree in Integration and Critical Problem Solving in Nursing from the University of Alcalá
- ♦ Degree in Social and Cultural Anthropology from the Autonomous University of Madrid
- ♦ Advanced Training in Dialysis Techniques for Nurses
- ♦ University Expert in Accidents and Emergencies from the Complutense University of Madrid.
- ♦ Training Course on Out-of-Hospital Emergencies from the Complutense University of Madrid
- ♦ University Expert in Management and Services Leadership for Nursing
- ♦ Priority Triage in the Emergency Department. Manchester System

## Management



### Mr. Roig D'Cunha-Kamath, Francisco Vicente

- ◆ Member of the Primary Care team at C's Lliria from June to October 2001.
- ◆ Member of the Primary Care team at C's Burjassot during the month of June, 2001.
- ◆ Member of the Primary Care team at C's de Massanasa during the month of July, 2001.
- ◆ Attending physician in the Emergency Department at Requena General Hospital during the months of July and August, 2001.
- ◆ Attending physician in the Emergency Department at Valencia Clinical University Hospital from November 2001 to November 2003 as an attending physician on a continuous care contract with periods of full contract and from November 2003 to the present date on a full-time contract.
- ◆ Doctor at Unión de Mutuas from December 2001 to June 2002.
- ◆ Doctor at the Parqueluz II Residence in Catarroja from its creation in 2002 until November 2003.
- ◆ Doctor of the Ascires group, currently in charge of the general medicine/family and community medicine office of the Ascires group in the Valencia area.

## Professors

### Ms. Gómez Lage, Laura

- ♦ Adult Emergency Supervisor at La Paz University Hospital
- ♦ Degree in Nursing from the Complutense University of Madrid
- ♦ University Expert in the Nursing Processes and Interventions of Pediatric Patients in Life Threatening Situations
- ♦ University Expert in the Emotional Development and Upbringing of a Child
- ♦ Pharmacology Residency in Emergency Medicine
- ♦ Nursing Basics in Emergencies

### Ms. Chamizo Alberto, Leticia

- ♦ Nurse in the Emergency Services of La Paz University Hospital
- ♦ Diploma in Nursing from the Red Cross School, Autonomous University of Madrid
- ♦ Expert in Out-of-Hospital Emergency Care at the School of Health Sciences, Complutense University, Madrid
- ♦ Qualifying certificate for Manchester Triage at HU La Paz
- ♦ Basic Life Support and Advanced Life Support Course
- ♦ Course on Initial care of the polytraumatized patient; Nursing for the main traumas of a polytraumatized patient and Monitoring of the critical patient.







**Ms. Forés Rivas, Ana**

- ◆ Member of the Intensive Care Unit of the Dr. Peset University Hospital
- ◆ University Diploma in Nursing
- ◆ Diploma in Corporate Nursing
- ◆ Master's Degree in the Prevention and Treatment of Addictive Behaviors
- ◆ Technical Laboratory Specialist
- ◆ Certificate of Pedagogical Aptitude (CAP)
- ◆ Health and Community Foundation. 7/2006-2012 and 6/2017 until present

**Mr. Vega Vega, Luis**

- ◆ Nurse in the Emergency Services of HU La Paz
- ◆ Degree in Nursing from the Red Cross School
- ◆ Expert in out-of-hospital care and Master of Nursing in Emergency and Critical Care at the European University of Madrid
- ◆ University Expert in Comprehensive Management of Adults in Infectious Diseases Care Processes
- ◆ Instructor of Basic Life Support and First Aid
- ◆ Manchester Triage Enabling Course
- ◆ Active member of the Red Cross ERIE Health Care

**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

05

# Structure and Content

The structure of the syllabus has been designed by a team of professionals aware of the importance of medical education on the approach to patients in emergency situations, and who are committed to excellent teaching using new educational technologies.



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*A comprehensive teaching program, structured in well-developed teaching units, oriented towards efficient and swift learning. Furthermore, it includes the main scientific developments on Coronavirus”*

### Module 1. General Aspects

- 1.1. Definitions and Concepts.
- 1.2. Comprehensive Care
- 1.3. Accident and Emergency Nursing Functions
- 1.4. Bioethics and Law in Emergencies and Disasters

### Module 2. Hospital Emergency Services.

- 2.1. Organization of Hospital Emergency Services
- 2.2. Nursing Records in the Emergency Department
- 2.3. Triage Systems in Hospitals

### Module 3. Emergency Services and Healthcare Transport

- 3.1. SEM Organization
- 3.2. Coordination and Health Regulation.
- 3.3. Emergency Information and Communication Systems
- 3.4. Modes of Healthcare Transport
  - 3.4.1. Intrahospital Transport
  - 3.4.2. Interhospital Transport
  - 3.4.3. Ground Medical Transport
  - 3.4.4. Air Medical Transport
- 3.5. Pathophysiology of Medical Transport and Transfer Positions
- 3.6. Patient Transfer Models

### Module 4. Life Support

- 4.1. General Aspects
- 4.2. Basic Life Support and AED in Adults
- 4.3. Basic Life Support and AED in Children
- 4.4. Basic Electrocardiography and Arrhythmias
- 4.5. Advanced Life Support in Adults
  - 4.5.1. Action in Response to Bradyarrhythmias
  - 4.5.2. Action in Response to Tachyarrhythmias
  - 4.5.3. Peripartum Arrhythmia
  - 4.5.4. Advanced Airway Management
  - 4.5.5. Drug Administration Routes
- 4.6. Advanced Pediatric and Neonatal Life Support
  - 4.6.1. Recognition and Management of Critically Ill Children
  - 4.6.2. Advanced Airway Management
  - 4.6.3. Basics of Mechanical Ventilation in Pediatrics
  - 4.6.4. Infusion Routes and Drugs in Pediatric CPR
  - 4.6.5. Pediatric VAS Algorithms and Arrhythmia Treatment
- 4.7. Neonatal Resuscitation.
  - 4.7.1. Post-Resuscitation Stabilization and Neonatal Transport
- 4.8. Advanced Life Support in Serious Trauma Patients
- 4.9. Resuscitation in Special Cases



## Module 5. Medical-Surgical Emergencies in Adults (I)

- 5.1. Cardiovascular Emergencies
  - 5.1.1. Anatomophysiological Review of the Cardiovascular System
  - 5.1.2. Ischemic Heart Disease
  - 5.1.3. Acute Heart Failure
  - 5.1.4. Cardiac Tamponade, Perocarditis,
  - 5.1.5. Cardiac Contractility Disorders
  - 5.1.6. Heart Failure
  - 5.1.7. Vascular Emergencies
  - 5.1.8. Inflammatory- Infectious Disorders
  - 5.1.9. Aortic Dissection and Aneurism
  - 5.1.10. Hemoptysis
  - 5.1.11. Acute Pulmonary Edema
  - 5.1.12. Deep Vein Thrombosis (DVT)
  - 5.1.13. Pulmonary Thromboembolism (PTE)
  - 5.1.14. Pulmonary Hypertension
  - 5.1.15. Aortic Dissection
  - 5.1.16. Hypertensive Emergencies
  - 5.1.17. Shock
  - 5.1.18. Acute Peripheral Vascular Disease
- 5.2. Respiratory Emergencies
  - 5.2.1. Anatomophysiological Review of the Respiratory System
  - 5.2.2. Acute Respiratory Failure
  - 5.2.3. ARDS.
  - 5.2.4. Respiratory Emergencies
  - 5.2.5. Asthma and Asthmatic Status
  - 5.2.6. Bronchitis, Bronchiolitis, Pneumonia
  - 5.2.7. Pneumonia
  - 5.2.8. Exacerbation of Chronic Obstructive Pulmonary Disease
  - 5.2.9. Pleuritis and Pleural Effusion

- 5.3. Neurological Emergencies
  - 5.3.1. Anatomophysiological Review of the Nervous System
  - 5.3.2. Neurological Assessment of a Critically Ill Patient Most Common Scales
  - 5.3.3. Vascular Disorders, Stroke Code
  - 5.3.4. Central Nervous System Infections
  - 5.3.5. Alterations in the Level of Consciousness: Syncope, Coma, Acute Confusional Syndrome
  - 5.3.6. Vertigo
  - 5.3.7. Seizures and Status Epilepticus
  - 5.3.8. Intracranial Hypertension (IH)
  - 5.3.9. Acute Vascular Accident
  - 5.3.10. Inflammatory-Infectious Disorders: Meningitis, Encephalitis, Meningococcal Sepsis etc.
- 5.4. Digestive Emergencies
  - 5.4.1. Anatomophysiological Review of the Digestive System
  - 5.4.2. Acute Abdominal Pain
  - 5.4.3. Acute Gastrointestinal Hemorrhage and Vascular Disorders
  - 5.4.4. Inflammatory- Infectious Disorders
  - 5.4.5. Mechanical Disorders of the Digestive System
  - 5.4.6. Acute Pancreatitis
  - 5.4.7. Acute Anal Disease.

## Module 6. Medical-Surgical Emergencies in Adults (II)

- 6.1. Nephrourological Emergencies
  - 6.1.1. Anatomophysiological Review of the Genitourinary System
  - 6.1.2. Renal and Excretory System Lithiasis
  - 6.1.3. Urinary Retention
  - 6.1.4. Inflammatory/ Infectious Disorders
  - 6.1.5. Acute Renal Failure
  - 6.1.6. Hematuria
  - 6.1.7. Acute Scrotal Syndrome: Testicular Torsion
  - 6.1.8. Urethral Pathology

- 6.2. Endocrinometabolic and Hydroelectrolytic Emergencies
  - 6.2.1. Glucose Metabolism Disorders
  - 6.2.2. Thyroid Diseases
  - 6.2.3. Acid Base Balance Disorders
  - 6.2.4. Water Balance Disorders
  - 6.2.5. Electrolytes Balance Disorders
- 6.3. Hematological, Immunological and Infectious Emergencies
  - 6.3.1. Thrombopenia
  - 6.3.2. Allergies and Anaphylactic Reactions
  - 6.3.3. Sepsis and Septic Shock
  - 6.3.4. Febrile Syndrome
- 6.4. Intoxications
  - 6.4.1. General Aspects of an Intoxicated Patient
  - 6.4.2. Most Common Intoxications
- 6.5. Obstetrical-Gynecological Emergencies
  - 6.5.1. Inflammatory, Infectious Disorders and Other Emergencies
  - 6.5.2. Gynecological Hemorrhage
  - 6.5.3. Pregnancy and Postpartum Emergencies
  - 6.5.4. Emergency Delivery Assistance
  - 6.5.5. Sexual Abuse
- 6.6. Psychiatric Emergencies
  - 6.6.1. Psychopathologies.
  - 6.6.2. Psychomotor Agitation
  - 6.6.3. Acute Alcoholic Disease
  - 6.6.4. Self-Harm Attempt
  - 6.6.5. Anxiety Attack
  - 6.6.6. Neuroleptic Malignant Syndrome

## Module 7. Other Emergencies

- 7.1. Pediatric Emergencies
  - 7.1.1. Infantile Colic
  - 7.1.2. Febrile Syndrome
  - 7.1.3. Seizures
  - 7.1.4. Airway Anatomy
  - 7.1.5. Exanthematous Diseases
  - 7.1.6. Digestive Pathology
  - 7.1.7. Child Abuse
  - 7.1.8. Transport of Critical Pediatric Patients
- 7.2. Otolaryngologic Emergencies
  - 7.2.1. ENT Anatomophysiological Recall
  - 7.2.2. ENT Emergencies
  - 7.2.3. Ophthalmologic Emergencies
  - 7.2.4. Skin Emergencies
- 7.3. Terminal Patient in Emergencies
  - 7.3.1. Emergency Complications in Terminal Patients
  - 7.3.2. Attention to the Situation in the Last Few Days of a Terminal Patient's Life
  - 7.3.3. Organ Donation in Accident and Emergencies

## Module 8. Adult and Pediatric Severe Trauma Care

- 8.1. General Aspects
- 8.2. Biomechanics of Accidents
- 8.3. Primary and Secondary Assessment
- 8.4. TBI.
- 8.5. Thoracic Trauma
- 8.6. Abdominal Trauma
- 8.7. Vertebral Trauma and Spinal Cord Injury
- 8.8. Locomotor System Trauma and Hemorrhage
- 8.9. Injuries
- 8.10. Hypovolemic Shock

- 8.11. Pediatric Trauma
- 8.12. Trauma During Pregnancy
- 8.13. Special Traumas
- 8.14. Injuries due to Physical, Chemical and Environmental Agents
- 8.15. Bites and Stings
- 8.16. Dysbarism
- 8.17. Analgesia and Sedation
- 8.18. Mobilization and Immobilization
- 8.19. Rescue and Medical Care in Confined and Remote Places

## Module 9. Multiple Victim Incidents and Disasters

- 9.1. General Concepts
- 9.2. MCI and Disasters Management: Organization
- 9.3. Sectorization
- 9.4. Deployment and Logistics
- 9.5. Triage
- 9.6. Multiple Victim Care
- 9.7. Evacuation
- 9.8. MCI Management in a Hospital
- 9.9. CBRN Incidents
- 9.10. Emergency Planning

## Module 10. Pharmacology of Accidents and Emergencies

- 10.1. General Aspects
- 10.2. Drug Administration Routes in Accidents and Emergencies
- 10.3. Drug Administration Safety
- 10.4. Fluid Therapy
- 10.5. Most Common Drugs Used in Accident and Emergency Care
- 10.6. Formulas and Dose Calculation

## Module 11. Diagnostic and Therapeutic Techniques in Accident and Emergency Care

- 11.1. Probes
- 11.2. Peripheral and Central Vein Cannulation
- 11.3. Intraosseous Route
- 11.4. Orotracheal Intubation (OTI)
- 11.5. Difficult Airway
- 11.6. Mechanical Ventilation
- 11.7. Use of Non-invasive Mechanical Ventilation
- 11.8. Pericardiocentesis
- 11.9. Thoracocentesis and Pleural Drains
- 11.10. Ultrasound for Nurses. Echo-Guided Techniques
- 11.11. Electrical Therapy (MP, CV, DF)
- 11.12. Monitoring of Hemodynamic Status
- 11.13. Capnography and Pulsimetry
- 11.14. Oxygen Therapy
- 11.15. Monitoring of Neurological Status
- 11.16. Monitoring of Sedoanalgesia
- 11.17. Collecting Analytical Samples
- 11.18. Frequently Used Scales in Accident and Emergency Medicine
- 11.19. Physiological Parameters in Adults and Children

## Module 12. Other important Aspects in Caring for a Critically Ill Patient

- 12.1. Patient Security
- 12.2. Teamwork Communication and Leadership
- 12.3. New Professional Skills in Accident and Emergency Care





12.4. New Technologies in Accident and Emergency Care

### Module 13. Update on Coronavirus Infections

- 13.1. Discovery and Evolution of Coronaviruses
- 13.2. Main Microbiological characteristics and Members of the Coronavirus Family
- 13.3. Epidemiological Changes in Coronavirus Infections from its Discovery to the Present
- 13.4. The Immune System and Coronavirus Infections
- 13.5. Pathogenesis and Pathophysiology of Coronavirus Infections
- 13.6. Risk Groups and Transmission Mechanisms of Coronaviruses
- 13.7. Natural History of Coronavirus Infections
- 13.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections
- 13.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling
- 13.10. Up-to-Date Management of Coronavirus Infections
- 13.11. Future Challenges in the Prevention, Diagnosis, and Treatment of Coronavirus

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



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.





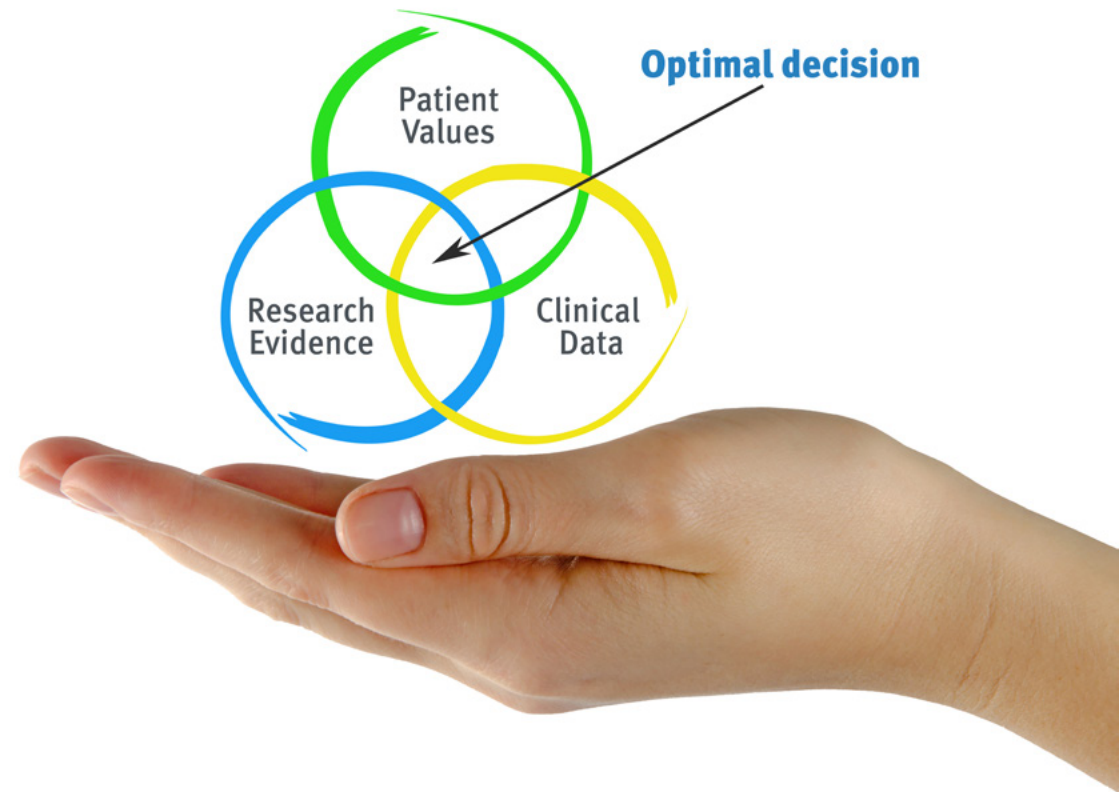
“

*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 Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of this method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a “case”, an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

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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. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

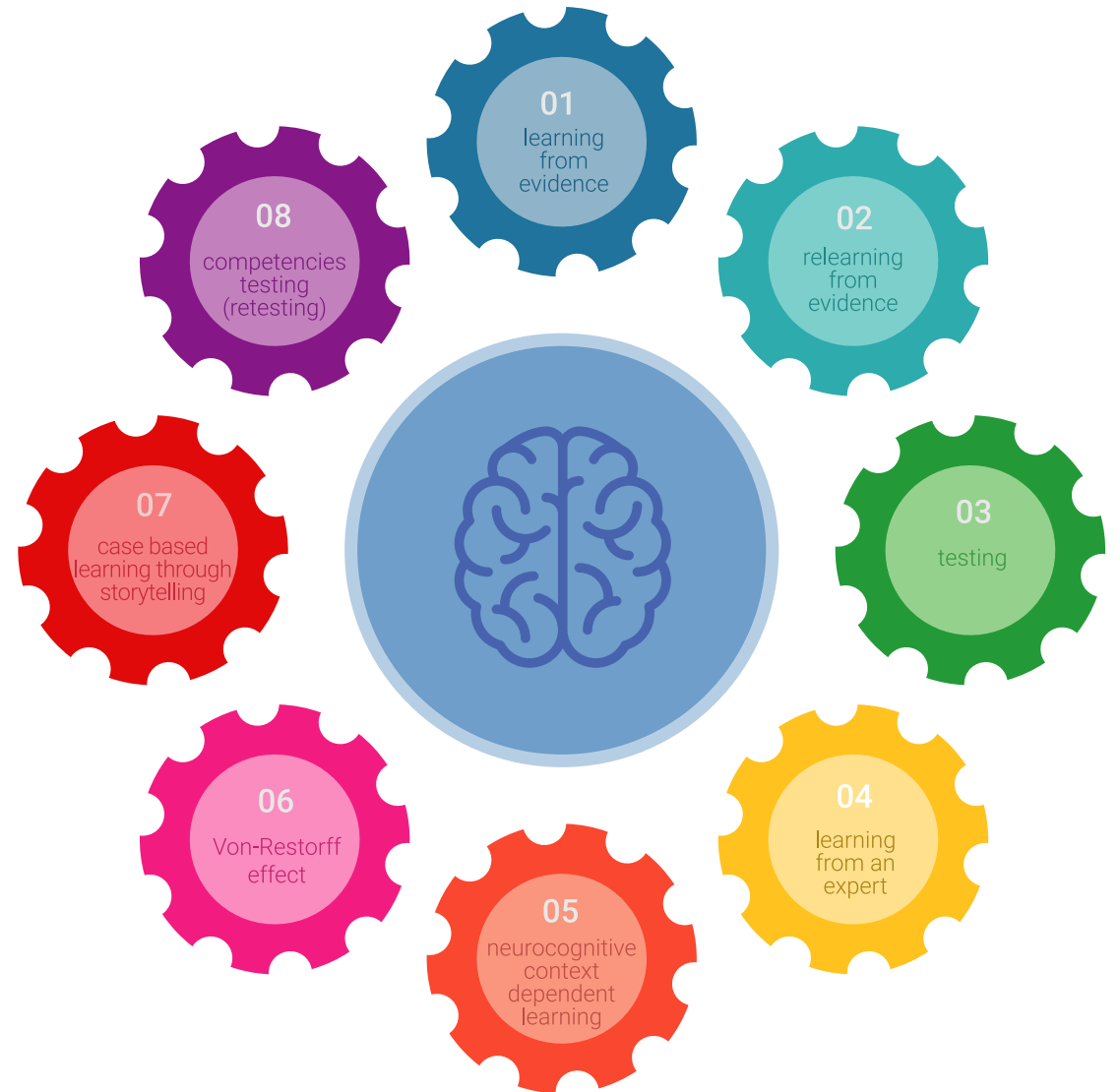


## Relearning Methodology

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.

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



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialisms regardless of practice workload. 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 results, involving you more in your studies, developing a critical mindset, defending arguments, and contrasting opinions: a direct route to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then 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.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

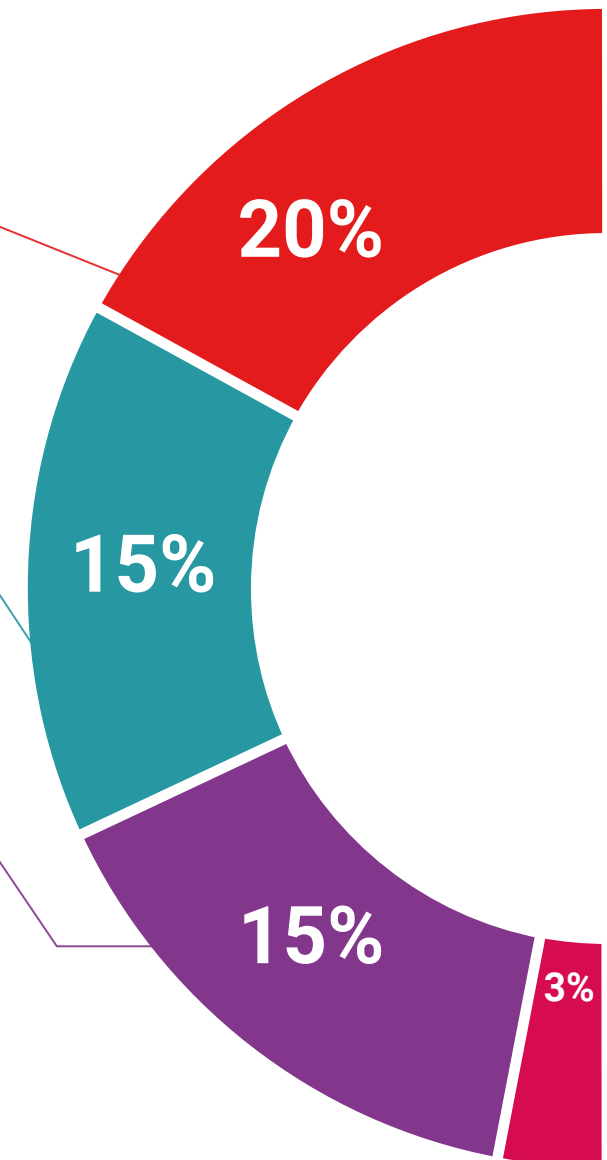
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

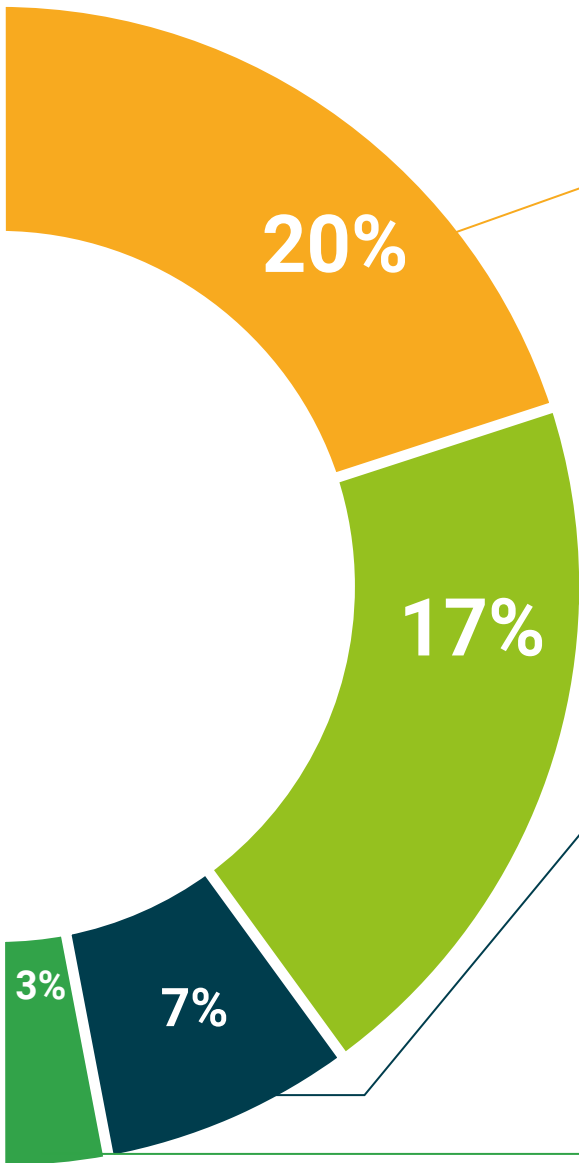


### Additional Reading

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

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



#### Classes

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

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





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

This private qualification will allow you to obtain a **Professional Master's Degree diploma in Professional Master's Degree in Emergency Nursing** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

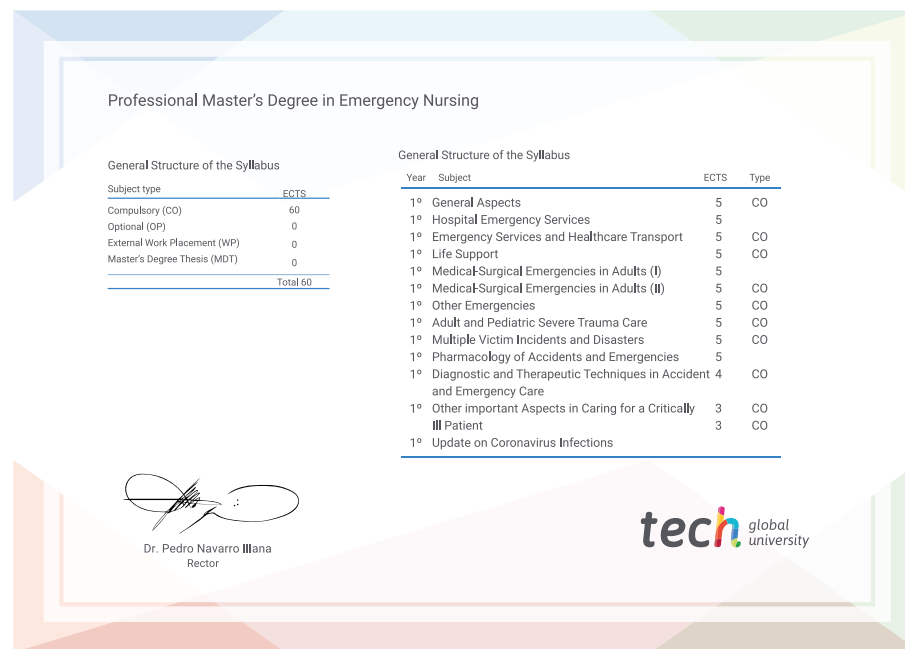
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Emergency Nursing**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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



## Professional Master's Degree

### Emergency Nursing

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree Emergency Nursing

