

# Advanced Master's Degree Accident and Emergency Care





## Advanced Master's Degree Accident and Emergency Care

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Credits: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

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

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# 01

# Introduction

Patients requiring urgent care usually have acute symptoms that can be life-threatening. Therefore, physicians, both in-hospital and out-of-hospital emergency departments, must be quick to respond to these first-order needs. To specialize in this field, TECH has designed this highly academic educational program with the objective of offering physicians the opportunity to achieve academic and professional excellence.





A photograph of a man and a woman in medical scrubs, looking upwards with a focused expression. The man is in the foreground, wearing a white lab coat over a blue shirt and tie. The woman is slightly behind him, wearing blue scrubs. The background is a bright, clinical setting. The image is split diagonally by a white line, with a dark blue geometric shape in the top right corner.

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*We offer you a quality specialization program with which you can expand your skills in the field of emergency care. A high-level program for professionals seeking to achieve professional success"*

Highly qualified healthcare professionals are an added value in patient care with urgent pathologies or in emergency situations, since they demand professionals who are able to respond under pressure with a limited amount of time. On many occasions, speed is essential to save a life, and a mistake during intervention can mean life or death for patients. For this reason, emergency professionals must have superior knowledge and constantly update their skills, allowing them to provide quality care, both in-hospital and out-of-hospital services.

To achieve such high-quality care, TECH has assembled the best team of professionals to develop this Advanced Master's Degree with specific content on emergency medicine. A fully up-to-date program in which you can find the latest information in this field. The program covers current issues from high-risk infectious diseases, pandemics and protocols required in emergency departments, to toxicology and rare diseases. Extensive and diverse content with which to obtain an overview of all the pathologies that can be found in emergency care, but without losing the depth and quality of content that all health education must have to be able to apply it in practice.

Throughout this specialization program, students will learn all of the current approaches to the different challenges posed by their profession. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level. This challenge is one of TECH's social commitments: to help highly qualified professionals specialize and develop their personal, social and work skills during the course of their studies.

We will not only take you through the theoretical knowledge we offer, but we will introduce you to another way of studying and learning, one which is simpler, more organic, and efficient. We will work to keep you motivated and to create in you a passion for learning. And we will push you to think and develop critical thinking.

This **Advanced Master's Degree in Accident and Emergency Care** is the most complete and up-to-date program on the market. The most important features include:

- ♦ The latest technology in e-learning software
- ♦ Intensely visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical case studies presented by practising experts
- ♦ State-of-the-art interactive video systems
- ♦ Teaching supported by telepractice
- ♦ Continuous updating and recycling systems
- ♦ Self-regulated learning: full compatibility with other occupations
- ♦ Practical exercises for self-assessment and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ♦ Communication with the teacher and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Supplementary documentation databases are permanently available, even after the education has ended



*Immerse yourself in an intensive study of Emergency Medicine and boost your career"*

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*An educational program created for professionals who aspire to excellence that will allow you to acquire new skills and strategies in a smooth and effective way”*

Our teaching staff is made up of working professionals. In this way, we ensure that we provide you with the up-to-date education we are aiming for. We have a multidisciplinary team of qualified and experienced professionals in different environments, who will carry out the theoretical knowledge in an efficient way, but above all, they will put at the service of the specialization the practical knowledge derived from their own experience.

This command of the subject is complemented by the effectiveness of the methodological design of this program. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for your specialization.

The design of this program is based on Problem-Based Learning, an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice. With the help of an innovative, interactive video system and *Learning from an Expert*, students can acquire the knowledge as if you were facing the scenario you are learning at that moment. A concept that will make it possible to integrate and fix learning in a more realistic and permanent way.

*We have the best teaching methodology and a multitude of simulated cases that will help you prepare for real situations.*

*A deep and complete immersion into the most up-to-date strategies and approaches, which will allow you to acquire useful knowledge to apply in your profession.*





# 02 Objectives

Our objective is to prepare highly qualified professionals for the working. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping professionals reach a much higher level of expertise and control. A goal that you will be able to achieve thanks to a highly intensive and detailed course.





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*If your goal is to improve in your profession and acquire a qualification that will enable you to compete with the best, then look no further: Welcome to TECH”*



## General Objectives

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- ♦ Gain the up-to-date knowledge required to treat 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
- ♦ Enable emergency medicine professionals in the methods that enable highly effective and efficient care in hospital emergency departments and primary care centers
- ♦ Successfully treat patients in the emergency department with the knowledge to respond optimally to their specific needs



*Make the most of this opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*







## 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
- ♦ 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 the electrocardiogram tracing in emergency situations
- ♦ Apply protocols for medical care in cases of heart rhythm disorders
- ♦ 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 conduct 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 the emergency department
- ♦ Identify the main clinical manifestations of exacerbation of acute bronchial asthma attacks
- ♦ Describe the therapeutic behavior in bronchial asthma exacerbations according to their severity

### **Module 6. Neurological Emergencies**

- ♦ Identify the case of cerebral vascular accident (CVA) and provide timely treatment
- ♦ Review the types of studies for the identification of the stroke
- ♦ Enable the approach of physicians involved in the initial care of AVE to a practical and simple way of updated guidance
- ♦ Present an update on current diagnostic methods and the various therapies available, on a case-by-case basis, for acute ischemic stroke

### **Module 7. Digestive Emergencies**

- ♦ Define acute abdominal pain
- ♦ Effectively perform anamnesis for acute gastrointestinal bleeding and vascular disorders
- ♦ Establish procedures to identify acute gastroenteritis
- ♦ Establish protocols for acute pancreatitis

### **Module 8. Endocrine and Emergencies**

- ♦ Have a broad knowledge of the definition, pathophysiology and classification according to severity of the most frequent endocrine and metabolic emergencies
- ♦ Establish diagnosis and apply effective treatment to these emergencies

### **Module 9. Nephrourological Emergencies**

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



**Module 10. Hematologic, Immunologic, and Infectious Emergencies**

- ♦ Characterize the main mechanisms in hemostasis to maintain blood flow and the integrity of the vascular system
- ♦ Correlate its two major components: primary hemostasis and secondary hemostasis
- ♦ Identify the most common 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 efficiently
- ♦ Learn how to conduct the psychiatric clinical interview
- ♦ Describe the different types of pathologies in psychiatry

**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. Otolaryngologic Emergencies**

- ♦ Review the anatomy of the external auditory canal
- ♦ Establish clinical and diagnostic classifications and referral criteria
- ♦ Attend 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 Patient in the Emergency Department**

- ♦ Define the urgent complications in the terminally ill patient
- ♦ Apply end-of-life care in the last days of life
- ♦ Apply dermatological care in the emergency department
- ♦ Delve into organ and tissue donation and discuss the approach with the patient and family members

**Module 16. Obstetric Emergencies**

- ♦ Detail the generalities of gynecological 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-Victim Incidents (MVI) 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 Accident and Emergency Care**

- ♦ Develop assertive communication skills in emergencies and emergencies
- ♦ Provide patient safety
- ♦ Understanding the new competencies of the emergency professional

### **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

### **Module 24. Current Challenges in Modern Emergency Department Management**

- ♦ Understand the general aspects of emergency department management and its evolution as a response to health care needs
- ♦ Develop specific aspects of emergency department organization in pandemic situations
- ♦ Acquire tools for the development of fundamental aspects of an emergency department: assistance, research and teaching
- ♦ Define general aspects of the inter-service relationship in emergency patient care and the integration of the emergency department with the rest of the hospital
- ♦ Define and recognize the importance of quality of care in the emergency department, its objectives and indicators
- ♦ Define and recognize the importance of patient safety as a guide for all healthcare

actions and develop guiding protocols Acquire knowledge for the development of multidisciplinary groups in patient safety in the emergency department

- ♦ Understand the humanization of health processes in the emergency department
- ♦ Delve into the knowledge related to protocols and attention to cases of gender violence
- ♦ Delve into general knowledge and practical tools in biosafety
- ♦ Review medical-legal and bioethical aspects related to urgent care

### **Module 25. Donation Process in Emergency Departments**

- ♦ Acquire general notions in end-of-life care
- ♦ Broaden knowledge of therapeutic limitations in life support
- ♦ In-depth knowledge of advance directives
- ♦ Delve deeper into basic medical-legal and ethical concepts of the order not to initiate cardiopulmonary resuscitation maneuvers
- ♦ Acquire knowledge of donations in emergencies and pre-interview

### **Module 26. New Technologies in Emergency Services**

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

### **Module 27. Advanced Vital Support**

- ♦ Acquire the ability to develop action protocols for CPR in risk situations
- ♦ Know the requirements of advanced life support protocols
- ♦ Review the strengths of the European and American advanced life support guidelines
- ♦ Delve deeper into the dissemination mechanisms in advanced life support

guidelines and protocols among healthcare personnel

- ♦ Acquire the tools to evaluate the implementation of protocols
- ♦ Apply advanced life support in adult and pediatric patients in special situations
- ♦ Acquire ethical and medico-legal notions of advanced life support in adult and pediatric patients

### **Module 28. Rare Diseases in the Emergency Department**

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

### **Module 29. Emergency Ultrasound**

- ♦ Review of general aspects of clinical ultrasound in the emergency department
- ♦ Gain a deeper understanding of the tools for clinical ultrasound in acute abdominal pain in the emergency department
- ♦ Master the tools for clinical ultrasound in patients with acute renal failure and urological manifestations in the emergency department
- ♦ Expand the tools for clinical ultrasound in chest pain and other cardiovascular symptoms in the emergency department
- ♦ Learn the uses of clinical ultrasound in patients with acute dyspnea of uncertain

origin in the emergency department

- ♦ Expand the tools for clinical ultrasound in patients with pain and increased volume of the lower limb in the emergency department
- ♦ Expand the tools for clinical ultrasound in patients with fever of unknown origin in the emergency department
- ♦ Establish the tools for clinical ultrasound in patients with hypotension and shock in the emergency department
- ♦ Know the tools for clinical ultrasound in acute cardiorespiratory arrest in the emergency department
- ♦ Recognize the tools for clinical ultrasound in polytraumatized patients in the emergency department
- ♦ Increase the tools for clinical ultrasound in ultrasound-guided procedures: central and peripheral venous access, arterial puncture, pericardiocentesis, paracentesis, thoracentesis, lumbar puncture in the emergency department

### Module 30. Clinical Simulation in the Emergency Department

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

### Module 31. Clinical Toxicology in Emergency Services

- ♦ Obtain general knowledge of poisoning
- ♦ Know the new aspects of new abused substances and their language
- ♦ Know the aspects of chemical submission and study protocols







- ♦ Acquire knowledge of the toxicity of the most common alternative medicines and pseudotherapeutic practices
- ♦ Gain knowledge of newly developed antidotes
- ♦ Internalize the knowledge of organ donation in brain death due to intoxication
- ♦ Review medical-legal aspects of intoxications

### **Module 32. Special Needs Patients**

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

### **Module 33. HRID (High-Risk Infectious Diseases)**

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

# 03 Skills

Once all the contents have been studied and the objectives of the Advanced Master's Degree in Accident and Emergency Care have been achieved, health professionals will have gained superior expertise and performance in this field. A very complete approach, in a high-level Advanced Master's Degree, which makes the difference.



A close-up photograph of a person's hand, specifically the thumb and index finger, which are wrapped in a white medical bandage. The skin is a light brown color. The background is a dark blue gradient with a white diagonal line separating it from the white area where the text is located.

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*Achieving excellence in any profession requires effort and perseverance. But above all, the support you will get from our professionals, who will give you the boost you need with the necessary means and assistance. At TECH, we offer you everything you need”*

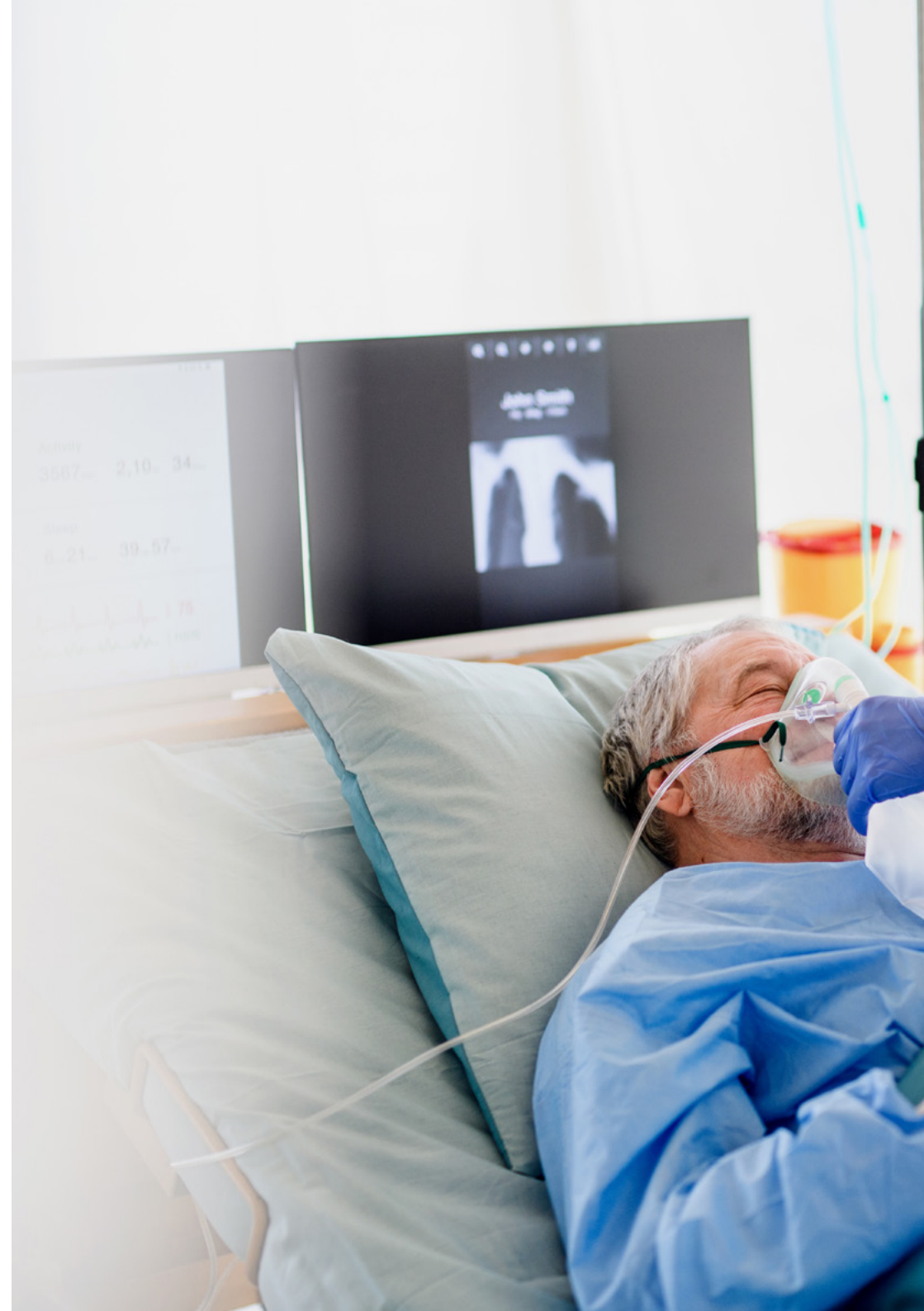




## General Skills

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- ♦ Possess and understand knowledge that provides a basis or opportunity to be original when developing and/or applying 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 field 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
- ♦ Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
- ♦ Recognize the need to maintain your professional skills and keep them up to date, with special emphasis on autonomous and continuous learning of new information
- ♦ Develop the capacity for critical analysis and research in your professional field
- ♦ Successfully implement new methodologies that bring effectiveness to the physician's work
- ♦ Act efficiently in critical situations in the daily practice of their profession
- ♦ Diagnose patients optimally in the emergency department







## 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 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
- ♦ 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
- ♦ 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
- ♦ Optimal management of an emergency department adapted to current organizational needs
- ♦ Best practices in the daily practice in emergency department
- ♦ Optimal handling of gender violence cases and other biosafety aspects
- ♦ Humanizing the treatment of all emergency situations
- ♦ Knowing how to correctly manage the end-of-life processes
- ♦ Organize the organ donation procedure
- ♦ Correctly handle new technologies that facilitate the day-to-day work of emergency professionals
- ♦ Understand new technologies contributions in emergency physician work
- ♦ Know how to work correctly with advanced life support and know its uses at an international level



- ♦ Reflect on the importance of emergency health care provider education
- ♦ Develop tools that allow for ongoing assessment of resuscitation teams in different scenarios
- ♦ Learn how to work with patients who come to the emergency department with a rare disease and, therefore, need special treatment
- ♦ Learn about and approach how clinical ultrasound works in emergency settings
- ♦ Learn how to develop simulation scenarios as a means to reinforce teamwork and emergency physician leadership
- ♦ Learn to work with drug addicted patients in the emergency department
- ♦ Understand new aspects of chemical submission, chemsex and new antidotes
- ♦ Know how to use the tools that enable optimal communication with patients with specific needs
- ♦ Know the action protocols in case of suspicion of high-risk infectious diseases
- ♦ Know how to work correctly with PPE materials in case of high risk infectious diseases



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# Course Management

The program includes leading experts in Emergency Medicine in its teaching staff, who contribute their work experience to this specialization program. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





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*We have an excellent team of professionals who have joined forces to teach you the latest advances in the field, with the aim of making you more qualified in daily work”*

## 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 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

- 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”*

## Management



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

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



### Dr. Rivera Núñez, María Angélica

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



## 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. Cancelliere, Nataly

- ♦ Specialist in the HULP Emergency Department
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Specialty in Allergology at the University Hospital La Paz
- ♦ Master in Expert in Emergency Medicine by the SEMES

### Dr. González Viñolis, Manuel

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

### Ms. Forés Rivas, Ana

- ♦ Nurse in the Intensive Care Unit at Dr. Peset University Hospital, Valencia

### Dr. Maroun Eid, Charbel

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

### Dr. Martín Quirós, Alejandro

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

### Dr. Martínez Zarza, Ana María

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

**Ms. Mayayo Alvira, Rosa**

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

**Mr. Rubio Bolivar, Javier**

- ♦ CEASEC Simulation Technician
- ♦ HULP Simulation Technician

**Dr. Roig D´Cunha-Kamath, Vicente Francisco**

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



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*Our goal is very simple: to offer you a quality specialization program with the best teaching system of the moment, so that you can achieve excellence in your profession"*



05

# Structure and Content

The contents of this program have been developed by different professors with a clear purpose: to ensure that our students acquire each and every one of the skills required to become true experts in this field. The content of this Advanced Master's Degree will allow you to learn all aspects of the different disciplines involved in this field. A comprehensive and well-structured program that will lead to the highest standards of quality and success.





“

*Through a carefully compartmentalized program, you will acquire the most advanced knowledge available today in order to safely carry out your daily work"*

### Module 1. General Aspects

- 1.1. Definitions and Concepts
- 1.2. Comprehensive Care
- 1.3. Bioethics and Legislation in Emergency Medicine and Emergencies

### 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. Pathophysiology of Medical Transport and Transfer Positions
- 2.6. 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 Case of Bradyarrhythmia
  - 3.2.2. Action in Response to Tachyarrhythmias
- 3.3. Basic Pediatric Life Support
- 3.4. Pediatric and Neonatal Advanced 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 VAS 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

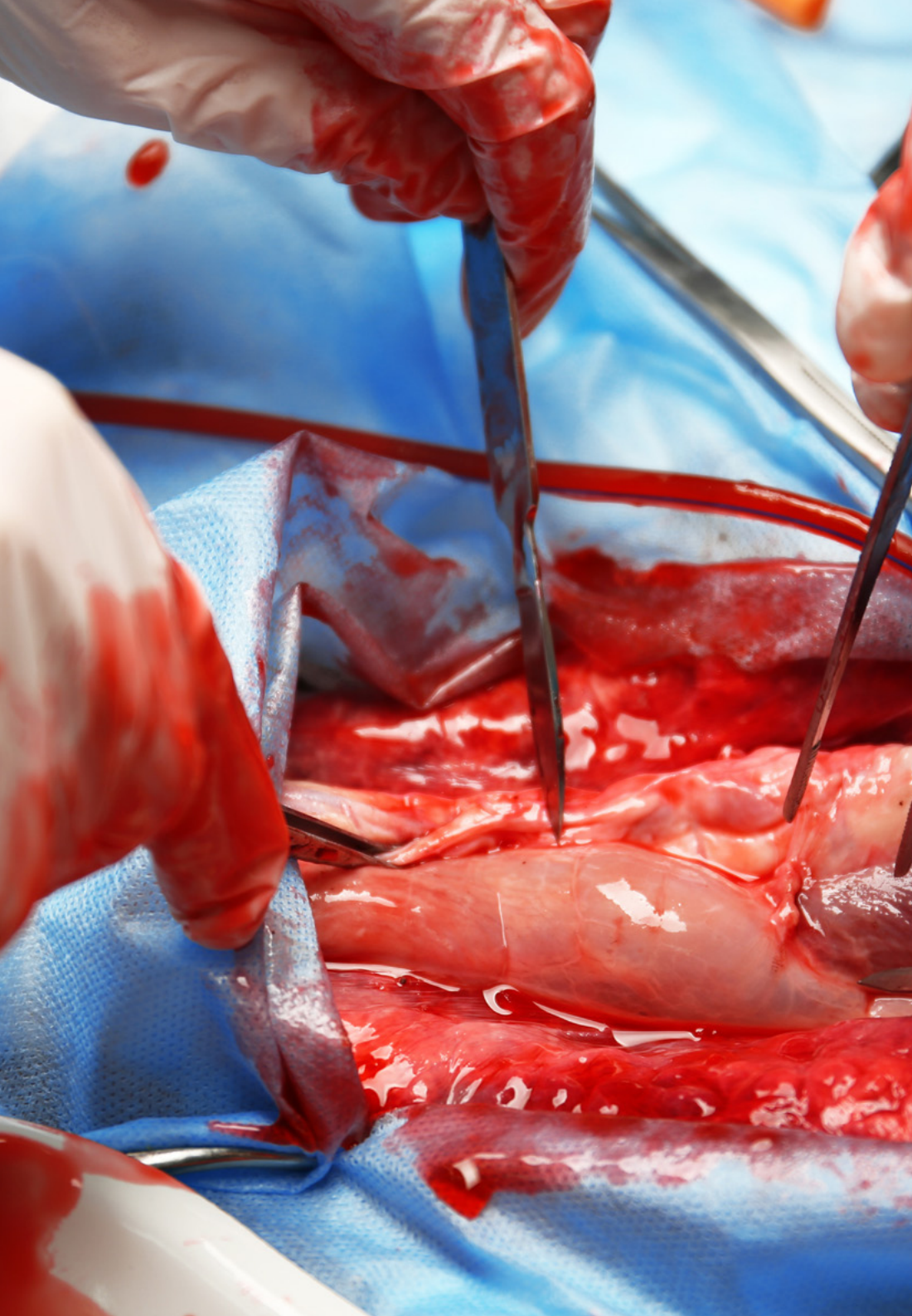
### Module 5. Respiratory Emergencies

- 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 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. Psychopathologies
- 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 Patient in the Emergency Department

- 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

### Module 16. Obstetric Emergencies

- 16.1. Inflammatory, Infectious and Other Emergencies
- 16.2. Gynecological Bleeding
- 16.3. Pregnancy and Postpartum Emergencies
- 16.4. Emergency Delivery Assistance
- 16.5. Sexual Abuse (Doc Not Sent Retro)

### Module 17. Pediatric Accidents and 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. Multi-Victim Incidents (MVIs) and Catastrophes

- 19.1. General Aspects
- 19.2. VMI and Disaster Management
- 19.3. Sectorization
- 19.4. Deployment and Logistics
- 19.5. Triage
- 19.6. Multiple Victim Care
- 19.7. Evacuation
- 19.8. MCI 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. Management of Non-Invasive Mechanical Ventilation
- 20.8. Pericardiocentesis
- 20.9. Thoracocentesis and Pleural Drainage
- 20.10. Emergency Department Ultrasonography
- 20.11. Electrical Therapy (MP, CV, DF)
- 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 Dose Calculation

### Module 22. Other Important Aspects in Accident and Emergency Care

- 22.1. Communication Skills in Emergencies
- 22.2. Patient Security
- 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

### **Module 24. Current Challenges in Modern Emergency Department Management**

- 24.1. Advanced Basic Concepts in Accident and Emergency Care
- 24.2. Basic Concepts in Accident and Emergency Care
- 24.3. Management Challenges in Times of Pandemics
- 24.4. Quality Challenges in the Emergency Department
  - 24.4.1. Quality of Care in the Emergency Department Indicators
- 24.5. Patient Safety Challenges in the Emergency Department
  - 24.5.1. Clinical Safety in the Emergency Department: Indicators
- 24.6. Biosafety in Emergency Medicine and Emergency Care
- 24.7. Integration of the Emergency Department with the Rest of the Hospital
- 24.8. Emergency Services and the Problem of Gender Violence
- 24.9. Clinical Research in the Emergency Department: Is it Possible?
- 24.10. Teaching in the Emergency Department: Beyond Assistance
- 24.11. Humanization of Emergency Department Management

### **Module 25. Donation Process in Emergency Departments**

- 25.1. Concept of End-of-Life Care in Emergency Departments
- 25.2. Concept of Donation in Emergency Departments
- 25.3. Final Wishes
- 25.4. DNR Order
- 25.5. Pre-Interview in the Emergency Department
- 25.6. Emergency Coordination - Transplant Team
- 25.7. Bioethics in Emergency Departments
- 25.8. The Role of the Family in the Donation Process in Emergency Departments
- 25.9. Ethical Aspects in the Donation Process in the Emergency Department

### **Module 26. New Technologies at the service of the Emergency Services**

- 26.1. New Technologies. What Are We Talking About?
- 26.2. Computer Applications at the Service of the Emergency Physician
- 26.3. New Triage Systems in Emergencies
- 26.4. Artificial Intelligence at the Service of the Emergency Physician
- 26.5. New Technologies in Disaster Situations
- 26.6. New Technologies in Pandemic Situations
- 26.7. New Systems for Diagnostic Test Adequacy in Emergency Departments
- 26.8. Integrating Technology in Patient and Family Information
- 26.9. Bringing Patients Closer to the Emergency Department through Technology

### **Module 27. Advanced Vital Support**

- 27.1. Advanced Life Support in Adults
- 27.2. Advanced Airway Management
- 27.3. Rapid Intubation Sequence
- 27.4. Protocols for Advanced Life Support in Adults
- 27.5. Advanced Life Support in Pediatric Patients
- 27.6. Special Situations in Advanced Life Support in Adults
- 27.7. Special Situations in Advanced Life Support in Pediatric Patients

### **Module 28. Rare Diseases in the Emergency Department**

- 28.1. Epidemiology and Rare Disease Problem Magnitude
- 28.2. Rare Diseases in Emergency Service Consultations
- 28.3. Hereditary Angioedema
- 28.4. Congenital Coagulopathies
- 28.5. Porphyria
- 28.6. Other Rare Diseases
- 28.7. Implementing Emergency Protocols: Current Situation
- 28.8. Useful Computer Applications for Emergency Physicians
- 28.9. Integration of Rare Disease Associations into the Emergency Department



## Module 29. Emergency Ultrasound

- 29.1. Introduction. Clinical Ultrasound Indications and Limitations in the Emergency Department
- 29.2. Clinical Ultrasound Utility in Different Acute Abdominal Pain Manifestations
- 29.3. Clinical Ultrasound in Acute Renal Failure and Urological Manifestations
- 29.4. Clinical Ultrasound in Chest Pain and Other Cardiovascular Symptoms (Syncope, Murmur, Electrocardiographic Alterations)
- 29.5. Clinical Ultrasound in Patients with Dyspnea of Uncertain Origin
- 29.6. Clinical Ultrasound in Patient with Edema or Pain in the Lower Limb
- 29.7. Clinical Ultrasound in Patients with Fever without Apparent Focus
- 29.8. Clinical Ultrasound in Hypotension and Undifferentiated Shock
- 29.9. Ultrasound in Cardiac Arrest and in the Advanced Airway Management
- 29.10. Ultrasound in Patients with Polytrauma
- 29.11. Ultrasound-Guided Procedures: Central and Peripheral Venous Access, Arterial Puncture, Pericardiocentesis, Paracentesis, Thoracocentesis, Lumbar Puncture

## Module 30. Clinical Simulation in an Emergency Department

- 30.1. Basic Principles in Clinical Simulation
- 30.2. Types of Clinical Simulation
- 30.3. The Importance of Communication in Clinical Simulation
- 30.4. Types of Simulators
- 30.5. Briefing and Debriefing
- 30.6. Leadership, Teamwork and Role Distribution
- 30.7. Types of Evaluations in Clinical Simulation
- 30.8. Scenario Preparation

## Module 31. Clinical Toxicology in Emergency Departments

- 31.1. General Information about Intoxicated Patients
- 31.2. Language and Drugs
- 31.3. New Abused Substances
- 31.4. Chemical Submission
- 31.5. Chemsex (Chemical Sex)
- 31.6. Alternative Medicine and Pseudotherapeutic Toxicity

- 31.7. Toxicity to Other Living Beings I
- 31.8. Toxicity to Other Living Beings II
- 31.9. New Antidotes
- 31.10. Organ Donation: Brain Death of Toxic Origin

## Module 32. Special Needs Patients

- 32.1. General Management
- 32.2. Specific Management According to Special Needs
- 32.3. Specific Protocols and Tool Use
- 32.4. The Importance of Accompanying Special Needs Patients
- 32.5. Diagnosis of ASD Patients
- 32.6. Severity of ASD
- 32.7. Complications in Management
- 32.8. Integrating Special Needs Patient Associations in Emergency Services
- 32.9. Role of Special Needs Patient Family Members in Emergency Services

## Module 33. HRID (High-Risk Infectious Diseases)

- 33.1. Introduction
- 33.2. PPE (Personal Protective Equipment)
- 33.3. Emergency Services Diversification: Emergency Circuits
- 33.4. Health Personnel Education
- 33.5. Emergency Room Drills
- 33.6. Patient Transfer and Transport to High Isolation Units
- 33.7. One Health
- 33.8. Respiratory Pathology Action Protocols
- 33.9. Hemorrhagic Fever Action Protocols
- 33.10. Future Threats: How to Prepare

# 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.



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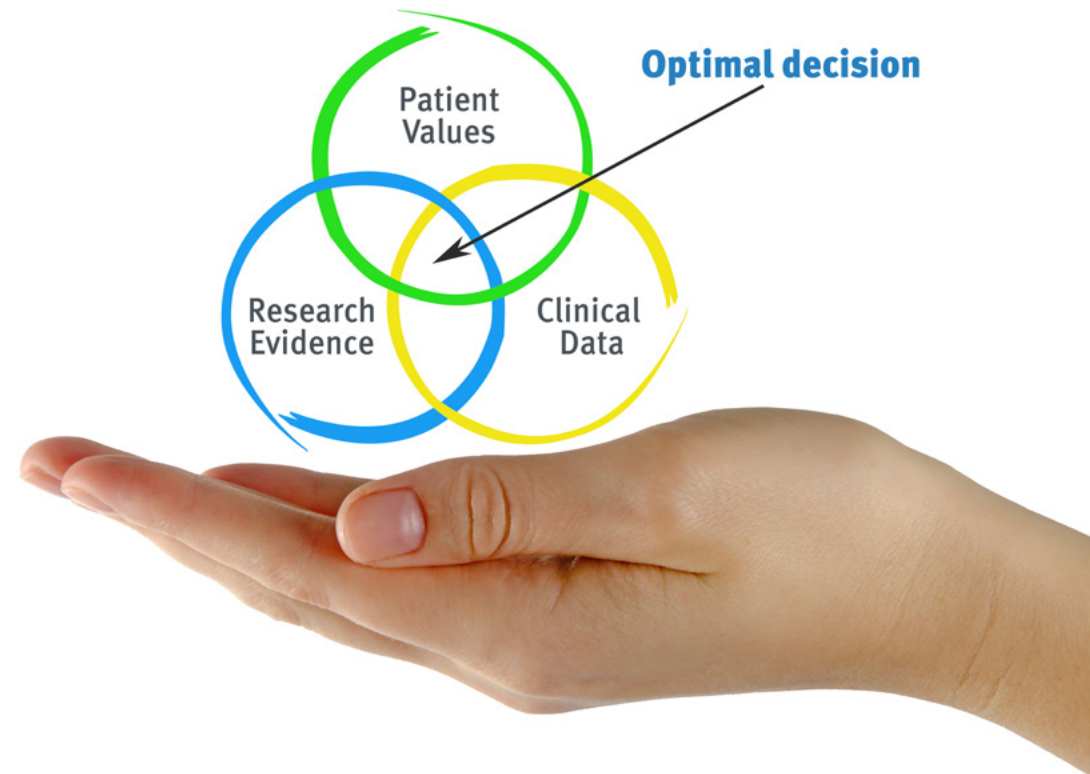
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## 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.

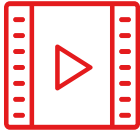
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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

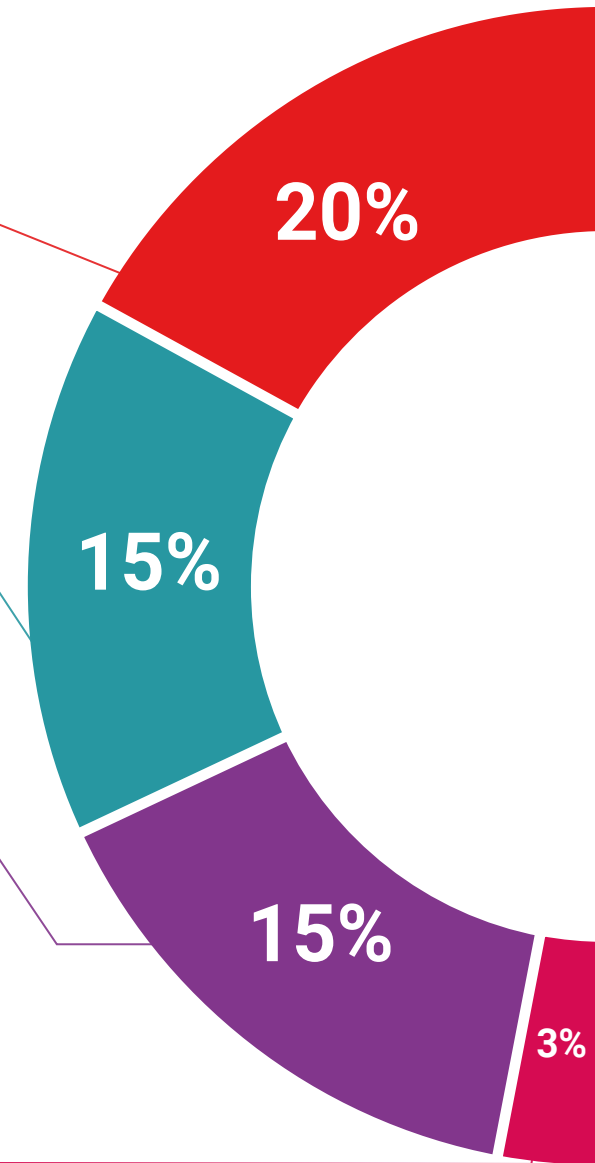
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

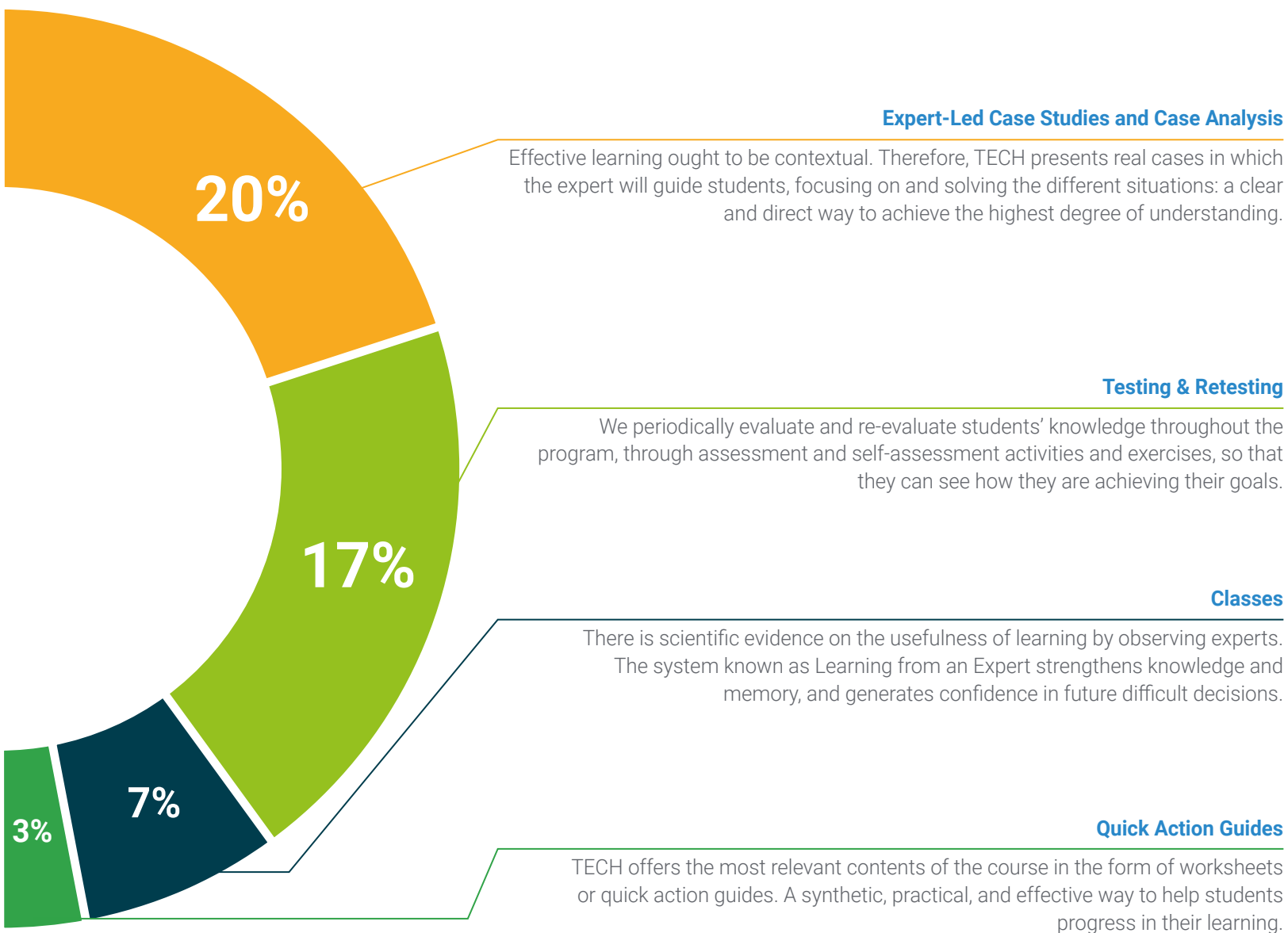
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.







# 07 Certificate

The Advanced Master's Degree in Accident and Emergency Care guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree issued by TECH Global University.





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

This program will allow you to obtain your **Advanced Master's Degree diploma in Accident and Emergency Care** 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** title 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: **Advanced Master's Degree in Accident and Emergency Care**

Modality: **online**

Duration: **2 years**

Accreditation: **120 ECTS**





## Advanced Master's Degree Accident and Emergency Care

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Credits: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

# Advanced Master's Degree Accident and Emergency Care

