

Hybrid Master's Degree

Emergencies in Primary Care





Hybrid Master's Degree Emergencies in Primary Care

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 ECTS Credits

Website: www.techtute.com/us/medicine/hybrid-master-degree/hybrid-master-degree-emergencies-primary-care

Index

01

Introduction

p. 4

02

Why Study this Hybrid
Master's Degree?

p. 8

03

Objectives

p. 12

04

Skills

p. 20

05

Course Management

p. 24

06

Structure and Content

p. 30

07

Clinical Internship

p. 38

08

Where Can I Do the Clinical
Internship?

p. 44

09

Methodology

p. 48

10

Certificate

p. 56

01

Introduction

Primary care has proven to be one of the fundamental bases of healthcare worldwide. Not only does it deal with the challenges of daily consultations, a task of enormous complexity due to the recent pandemic situation, but it often has to deal with emergencies of various specialties. Therefore, the physician needs to have the most innovative tools in this field, and that is what this program will provide: a complete update in the approach to the Emergency Department in Primary Care. In addition, as a complement to the learning process, the professional will be able to carry out an on-site stay in a clinical center of recognized prestige where they will be able to put into practice the innovative techniques acquired throughout the degree.



A close-up photograph of a person's arm. A blue medical glove is visible, holding a pink tourniquet around the arm. The background is a mix of red and blue geometric shapes.

“

The latest advances in the approach to Emergency Care in Primary Care are here, provided from an online learning complemented by an on-site stay in a clinical center of recognized prestige"

The growing importance of primary care has led to the incorporation of numerous new procedures into the discipline. Therefore, the objective is to respond to the daily challenges of this field, which has been transformed by the recent pandemic situation. This situation has been accentuated in the field of emergencies, since primary care has had to deal with this type of pathologies more assiduously in recent years.

This Hybrid Master's Degree has been designed, therefore, with the aim of providing the professional with the most recent advances in this field, so that it has included in its itinerary the most innovative techniques and procedures with which to respond to all types of emergencies in Primary Care.

The physician will find in this program the latest developments in issues such as advanced cardiovascular support and invasive techniques in emergencies, acute chronic obstructive pulmonary disease, new scientific evidence in the pathogenesis and pathophysiology of coronavirus infections or the main pathologies of specialties such as gynecology or dermatology.

All this, from an online teaching methodology that will later give way to a face-to-face stay in a clinical center. The online stage is characterized by multimedia teaching resources and a teaching staff composed of practicing specialists who will accompany the professional throughout this phase. After, you will be able to put into practice the new knowledge gained in an internship where you will come into contact with real patients while being guided by doctors from the clinic itself.

In addition, this academic itinerary is highlighted by the participation of an international medical reference among the members of its teaching staff. This expert, of maximum prestige and experience in the field of Emergency Care in Primary Care is in charge of a group of rigorous Masterclasses in which the students will be able to acquire a holistic vision of this health area.

This **Hybrid Master's Degree in Emergencies in Primary Care** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Development of more than 100 clinical cases presented by medical professionals who are experts in emergency medicine in the field of primary care
- ♦ Its graphic, schematic and eminently practical contents, with which they are conceived, gather scientific and assistance information on those medical disciplines essential for professional practice
- ♦ The best methods of patient assessment and monitoring in Emergencies in Primary Care
- ♦ Comprehensive systematized action plans for the main pathologies in Emergencies in Primary Care
- ♦ Presentation of practical workshops on diagnostic and therapeutic techniques for emergency patients
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Practical clinical guides on approaching different pathologies
- ♦ With a special emphasis on evidence-based medicine and research methodologies in emergencies
- ♦ All of this will be complemented by 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
- ♦ Furthermore, you will be able to carry out a clinical internship in one of the best hospital centers

“

Incorporate the latest diagnostic techniques and treatments into your daily practice thanks to the on-site stay that you will be able to carry out thanks to this Hybrid Master's Degree"

In this Hybrid Master's Degree, of a professionalizing nature and blended learning modality, the program is aimed at updating medical professionals who work in Primary Care. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge in medical practice, and the theoretical-practical elements will facilitate the updating of knowledge and allow decision making in patient management.

Thanks to their multimedia content developed with the latest educational technology, they will allow the medical professional to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive learning programmed to specialize in real situations. The design of this program focuses on Problem-Based Learning, through which the student will have to try to solve the different professional practice situations that will arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

The recent health situation has brought about enormous changes in primary care in the emergency department and with this program you will be able to catch up with them.

The online phase of this program will allow you to study when and where you want, as it is fully adaptable to your professional circumstances.



02

Why Study this Hybrid Master's Degree?

This Hybrid Master's Degree is differential in the work of updating the emergency specialist, as it offers both a theoretical and practical vision of the latest scientific postulates in the field. Therefore, it presents a unique academic opportunity in the market, with all the guarantees to access both the latest technology and capabilities in Primary Care Emergency as well as the privileged knowledge of the leading experts in the area.

The professional will enjoy a 100% online study period where they will review the current methods, the most updated scientific postulates and all the content developed by great experts in the field. However, they will also live a 100% practical experience with a multidisciplinary team and a designated tutor, who will accompany you during the execution of your procedures, in a state-of-the-art clinical space with real patients.



“

This program will allow you to access both the most current scientific postulates on Emergency Medicine and its own practical application in real environments of high prestige"

1. Updating from the Latest Technology Available

Every Emergency Physician in Primary Care must be up to date with the technologies that facilitate every day more and more the diagnoses and approaches to patients with diverse clinical pictures. This Internship Program is the perfect opportunity to be updated in the most rigorous clinical methodology currently in use.

2. Gaining In-depth Knowledge from the Experience of Top Specialists

Thanks to TECH's commitment to provide high-value knowledge for professionals, in this program it has joined forces with renowned teachers who provide students with all their practical experience. They also incorporate their own work methodology, advances, organization and efficient management in a Primary Care Emergency Unit. In this way, the specialist will acquire the knowledge they need to update their curricular profile.

3. Entering First-Class Clinical Environments

Given that the clinical centers selected by TECH for this Hybrid Master's Degree meet the highest quality standards, the specialist is guaranteed a particularly advantageous face-to-face immersion. They will be able to be part of the demanding daily routine of a busy Emergency Unit, where they will be able to attend different cases and incidents received, always adapting to the requirements of the circumstances.





4. Combining the Best Theory with State-of-the-Art Practice

During this program, the specialist will have a privileged opportunity to delve deeper into Emergencies in Primary Care. From both a practical and theoretical perspective, they will be updated in an effective and efficient way, surrounded at all times by leading experts in the area.

5. Expanding the Boundaries of Knowledge

To facilitate the specialist's training, TECH offers the possibility of taking this program from wherever you are, since its study system is 100% online. In addition, the Internship Program can not only be carried out in national centers, but also internationally, which will allow you to live an international academic experience.

“

*You will have full practical immersion
at the center of your choice”*

03 Objectives

The main objective of this Hybrid Master's Degree in Emergencies in Primary Care is to provide the professional with the latest advances in these health areas. In this way, a program has been designed that contemplates two stages of learning, first online and, later, face-to-face, to ensure that the specialist is updated in the most effective way, with an eminently practical approach.



“

You will achieve your main objective: to update and work with the latest techniques and procedures in Emergencies in Primary Care"



General Objective

- ♦ In this program, the physician will be able to achieve their main objective: to get up to date with the latest procedures and protocols in the field of Primary Care Emergency Medicine. Therefore, this degree is completely oriented to meet that goal, and upon completion the professional will have obtained the update they are looking for, being able to apply their new skills in their work immediately



Know, from the most effective teaching methodology, the new emergency techniques in areas such as cardiology or otorhinolaryngology"





Specific Objectives

Module 1. Organizational Aspects of the Emergency Department

- ♦ Define the structure and organization of emergency services in primary care
- ♦ Understand the importance of medical records in the emergency department and understand the most relevant legal and ethical aspects of health care in emergencies in primary care
- ♦ Understand the role of healthcare professionals in Emergencies in Primary Care

Module 2. Cardiac Emergencies

- ♦ Identify the symptoms of the different types of high-risk syncope
- ♦ Define 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
- ♦ Adequate use of the comprehensive action plan with regard to The Heart Attack Code
- ♦ Apply the specific procedures in Acute Coronary Syndrome and assess the possibility of prehospital fibrinolysis
- ♦ Identify the signs and symptoms of patients who come to the primary care center with pericarditis
- ♦ Resolve a hypertensive emergency situation using the updated procedure of care

Module 3. Advanced Cardiovascular Support and Invasive Techniques in the Emergency Room

- ♦ Interpret the main signs in order to properly analyze an electrocardiogram in urgent and emergency situations in Primary Care
- ♦ Use general procedures and techniques applied to critical patients in emergency situations
- ♦ Get up-to-date on the therapeutic model in atrial fibrillation according to the latest scientific evidence
- ♦ Apply up-to-date basic and advanced CPR techniques for all ages
- ♦ Demonstrate the correct sequence of transcutaneous pacemaker application
- ♦ Define proper use of pulse oximetry and capnography devices

Module 4. Respiratory Emergencies

- ♦ Incorporate advances in the appropriate management of patients with Congestive Heart Failure and Acute Pulmonary Edema
- ♦ Review the basic concepts of non-invasive mechanical ventilation management
- ♦ Correct use of non-invasive mechanical ventilation through the Boussignac CPAP System
- ♦ Identify the different vital rhythms to apply the appropriate algorithm for advanced cardiopulmonary resuscitation, according to the latest scientific evidence on advanced cardiovascular support
- ♦ Adequately define the different parameters involved in invasive mechanical ventilation
- ♦ Get up-to-date on treatment to resolve an acute decompensation in a dyspneic patient
- ♦ Recognize the differential diagnosis between the asthmatic patient, bronchospasm, and exacerbation of chronic obstructive pulmonary disease
- ♦ Review the pathophysiology involved in an asthmatic crisis
- ♦ Use pharmacological treatment measures in pneumonia

- ♦ Identify the signs and symptoms of massive pulmonary embolism
- ♦ Differentiate the different levels of health care in a patient with hemoptysis and assess the criteria for hospital referral

Module 5. Neurological Emergencies

- ♦ Describe the initial management of the main neurological emergencies in the out-of-hospital setting
- ♦ Adequate use of the comprehensive action plan for the Code Stroke
- ♦ Differentiate immediate and appropriate action in acute confusional syndrome, headache and seizures
- ♦ Recognize and resolve a seizure situation
- ♦ Describe the different types of headaches and the appropriate treatment in each case
- ♦ Recognize a coma situation without any doubt

Module 6. Digestive Emergencies

- ♦ Identify the signs and symptoms of the main gastrointestinal tract conditions and their repercussions
- ♦ Differentiate the main causes of acute abdomen and manage acute abdominal pain in Primary Care
- ♦ Review the pathophysiology of an intestinal obstruction process
- ♦ Express the different manifestations resulting from biliary diseases
- ♦ Recognize the specific pathological picture of upper gastrointestinal bleeding
- ♦ Use the different complementary tests to diagnose an ingested foreign body

Module 7. Nephrological and Urologic Emergencies

- ♦ Define the diagnostic criteria for acute renal failure
- ♦ Use appropriate treatment for acute renal colic
- ♦ Resolve an acute urinary retention situation in the Primary Health Care setting
- ♦ Identify the signs and symptoms of a patient with Rhabdomyolysis
- ♦ Assess the criteria for referring a patient with a urinary tract infection

Module 8. Pediatric Emergencies

- ♦ Master the procedure of pediatric and neonatal cardiopulmonary resuscitation in the primary care setting
- ♦ Identify the different urgencies and emergencies in pediatrics
- ♦ Apply treatment for a child having a seizure
- ♦ Resolve abdominal pain, vomiting, and diarrhea in children
- ♦ Distinguish between the different respiratory tract diseases in children
- ♦ Apply the initial treatment measures for traumatized children
- ♦ Interpret the possible severity of cranioencephalic trauma in a child
- ♦ Identify the criteria for hospital referral in case of limping in children
- ♦ Recognize the medical-legal documents and attitudes in situations of child abuse

Module 9. Endocrine Emergencies

- ♦ Interpret the fundamental alterations of glycemic metabolism
- ♦ Apply appropriate measures to reverse a diabetic ketoacidosis situation
- ♦ Recognize the semiology of an Addisonian crisis
- ♦ Distinguish between hypoglycemia and hyperglycemia, and apply appropriate treatment
- ♦ Delve into non-ketotic hyperosmolar comas

Module 10. Ophthalmologic Emergencies

- ♦ Explain the main acute ENT and ophthalmologic diseases
- ♦ Indicate the appropriate treatment for pink eye
- ♦ Use appropriate complementary tests to detect acute vision loss
- ♦ Master treatment when an ocular aggression occurs

Module 11. Otolaryngologic Emergencies

- ♦ Compare the differences between anterior and posterior epistaxis
- ♦ Analyze the different treatments for vertigo
- ♦ Delve into sudden deafness and communication with patients

Module 12. Trauma and Neurosurgical Emergencies

- ♦ Analyze the different traumatologic conditions in Emergencies in Primary Care
- ♦ Recognize the general guidelines for action in case of upper and lower limb trauma
- ♦ Adequate use of the integral plan of action in accordance with the Polytrauma Code
- ♦ Differentiate the severity of different spinal injuries

Module 13. Vascular Emergencies

- ♦ Identify acute arterial limb ischemia
- ♦ Apply treatment in case of deep vein thrombosis
- ♦ Interpret the potential severity of venous insufficiency
- ♦ Delve into aneurysmal disease and existing treatments

Module 14. Gynecological Emergencies

- ♦ Identify the most frequent gynecological-obstetric conditions in primary health care and state the precise guidelines in each case to correctly resolve them
- ♦ Review the main aspects of childbirth care, previous care, basic techniques of assistance, types of presentations, and dilatation, expulsion and delivery times in the out-of-hospital setting of Primary Care
- ♦ Understand the care protocol for rape victims
- ♦ Identify the different drugs in pregnancy and lactation that do not put the patient's health at risk

Module 15. Psychiatric Emergencies

- ♦ Define the clinical symptomatology of psychopathologies
- ♦ Identify the main signs and analyze the risk of a self-harm attempt
- ♦ Adequately resolve a psychomotor agitation crisis
- ♦ Indicate the appropriate treatment for alcohol withdrawal syndrome
- ♦ Recognize the clinical symptomatology of an anxiety attack and differentiate it from other pathologies

Module 16. Environmental Emergencies

- ♦ Manage intoxicated patients and injuries caused by environmental agents
- ♦ Discriminate between the different treatments to be applied in case of bites and stings
- ♦ Correctly apply treatment in case of electrocution
- ♦ Delve into heat stroke and how to act in case of emergency

Module 17. Skin Emergencies

- ♦ Differentiate between the different degrees of burns
- ♦ Calculate the amount of fluids needed to infuse a burn victim according to the extent and depth of the burn
- ♦ Distinguish between the various types of skin infections

Module 18. Hematological Emergencies

- ♦ Correctly apply hemotherapy in patients with hematological conditions
- ♦ Distinguish between the different anticoagulant treatments
- ♦ Delve into anemia and how to act in case of emergency
- ♦ Identify hemostasis disorders

Module 19. Oncologic Emergencies

- ♦ Recognize the most frequent infectious, inflammatory, autoimmune, and tumor diseases in primary care
- ♦ Use therapeutic measures for oncology patients with neutropenia
- ♦ Identify the different acute complications in chemotherapy treatment
- ♦ Master the types of pain and terminal sedation

Module 20. Infectious Emergencies

- ♦ Recognize the symptoms and signs of severity in case of acute febrile episode
- ♦ Distinguish the differential diagnosis of abdominal pain, vomiting, and diarrhea
- ♦ Identify patients with fever due to HIV infection
- ♦ Correctly diagnose urinary tract infections

Module 21. Toxicology Emergencies

- ♦ Identify the main immunological emergency pathologies and manage patients suffering from anaphylactic reactions
- ♦ Effectively apply initial measures to different types of acute intoxication
- ♦ Recognize the manifestations of intoxications by psychotropic drugs, NSAIDs, and digitalis
- ♦ Discover the effects of intoxication from drugs and organophosphates

Module 22. Geriatric Emergencies

- ♦ Differentiate the pathophysiological characteristics of elderly patients
- ♦ Identify the types of pathologies that can affect geriatric patients
- ♦ Master the drugs to be administered to geriatric patients according to their needs

Module 23. Pharmacology in Emergencies

- ♦ Manage frequently used medication in emergency medicine and urgent care
- ♦ Distinguish between the different types of fluid therapy
- ♦ Point out the different drugs used for sedation, pain relief, and relaxation in emergency medicine

Module 24. Evidence-Based Medicine

- ♦ Master writing scientifically structured articles and publishing results in high impact journals
- ♦ Delve into the retrieval of quality, specialized information in health sciences

Module 25. Latest Information on COVID-19 Infections

- ♦ Know the microbiological characteristics of COVID-19
- ♦ Know how to assess the morbidity and mortality of COVID-19 infections
- ♦ Identify the main risk groups and mechanisms of COVID-19
- ♦ Be able to perform the necessary tests for diagnosing COVID-19
- ♦ Know how to apply the necessary preventive measures, as well as the most accurate treatments according to the type of patient



Know, from the most effective teaching methodology, the new emergency techniques in areas such as cardiology or otorhinolaryngology"

04 Skills

This program focuses on the acquisition of new competencies for the approach and management of various pathologies and urgent patients in the area of primary care. Therefore, and thanks to the practical stay offered by TECH to its students, the physician will be in a position to incorporate into their work a whole series of skills that will allow them to perform more effectively in all types of emergencies.



“

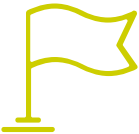
In this Hybrid Master's Degree you will acquire the necessary skills to become a fully up to date primary care physician"



General Skills

- ♦ Possess and understand knowledge that allows originality in the development and/or application of ideas, often in a research context
- ♦ Know how to apply the acquired knowledge and problem solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study
- ♦ Integrate knowledge and face the complexity of making judgments based on information that, while incomplete or limited, includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments
- ♦ Know how to communicate their conclusions, knowledge and reasons to specialized and non-specialized 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

- ♦ 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 the field of their profession
- ♦ Use theoretical concepts and medical knowledge for problem solving and decision-making in patient care in critical and emergency situations in Primary Care
- ♦ Relate the main aspects of research for comprehensive patient care in emergency and urgent care
- ♦ Understand the concept of continuity of care, the devices and protocols established to guarantee it
- ♦ Understand the basic functioning of the Health System, in order to be able to refer and transfer a patient to other areas of specialization according to suitability criteria. Recognize vital emergencies and apply measures to solve them in Primary Care
- ♦ Skillfully use the most commonly used treatment and diagnostic techniques in out of hospital emergencies
- ♦ Assume duties in the field of critical and emergency care in primary care
- ♦ Adapt their decision-making to the current situation, environment, time, and available resources
- ♦ Work with patients that have been diagnosed or present symptoms of Coronavirus, complying with all safety measures
- ♦ Perform diagnostic tests to detect possible cases of Coronavirus



By taking this Hybrid Master's Degree you will be up to date with the most advanced therapeutic methods for primary care of emergency patients"

05 Course Management

To further round out the excellent qualities of this program, TECH has been responsible for bringing together a teaching staff of great prestige in the field of Emergencies in Primary Care. Therefore, the professional who completes this program will have been able to be updated by the hand of the best specialists in the current health panorama, who will directly provide all the keys and the latest procedures in the management of all types of urgent situations and pathologies.



“

The most complete contents in Emergencies in Primary Care can be found in this program, designed to provide the professional with a complete update in this complex health area"

International Guest Director

As National Director of Clinical Innovation at US Acute Care Solutions, **Jesse M. Pines, M.D.**, is one of the most recognized figures in the **Emergency Medicine and Healthcare Services field**. In fact, his accomplishments include the creation and execution of the first governmental alternative payment model (ED EQUIP, in Maryland) to reduce the total cost of care. In addition, he leads the development and implementation of Telemedicine programs covering a wide variety of specialties, including the ER, Psychiatry and Intensive Care Units, among others.

His extensive experience in **medical leadership**, large database study design and Big Data research has led him to publish over 350 peer-reviewed articles and writing seven books in these areas. His work has been recognized internationally in various reputable media outlets, including TIME Magazine, the Wall Street Journal and Slate Magazine.

His more than two decades of experience have earned him several leadership positions at George Washington University. Among them, he was the **Director** of the Center for Health Innovation and Research, also leading the Research Fellowship program and the Center for Healthcare Quality.

Therefore, throughout his career, Dr. Jesse M. Pines has received multiple awards, both for the articles he has published and for his own work and contribution to the **field of Emergency Medicine**. He is also the **Chairman of the American College of Emergency Physicians (ACEP)** Task Force on New Models of Professional Practice, holding various positions in the ACEP itself as well as in the Society for Academic Emergency Medicine and the American Academy of Emergency Medicine.



Dr. Pines, Jesse M.

- National Director of Clinical Innovation at US Acute Care Solutions, United States
- Emergency Physician at Allegheny Health Network
- Professor of Emergency Medicine at George Washington University
- Professor of Emergency Medicine at Drexel University
- Director of the Medical Research Fellowship Program, George Washington University
- Director of the George Washington University Center for Health Research and Innovation
- M.D., Georgetown University
- Master of Business Administration from Georgetown University
- M.S. in Clinical Epidemiology, University of Pennsylvania



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

Management



Dr. Roig D'Cunha-Kamath, Francisco Vicente

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

Professors

Dr. Brasó Aznar, José Vicente

- ♦ Section Chief of the Emergency Medicine Department of the La Ribera University Hospital
- ♦ Hospital Emergency Physician
- ♦ Associate Professor of Emergency Medicine in the Faculty of Medicine of the University of Valencia



06

Structure and Content

This Hybrid Master's Degree in Emergencies in Primary Care is structured in 25 specialized modules, through which the professional will be able to delve into issues such as infusion routes and drugs, diagnosis and treatment of arrhythmias, acute digestive hemorrhage, initial care of the polytraumatized child, risk exposure and exposure to potentially contaminating material or the most relevant research methods for evidence-based medicine.





“

The Internship Program will help you to update your clinical practice in critical patient situations"

Module 1. Organizational Aspects of the Emergency Department

- 1.1. Organization of the Emergency Department in Primary Care. Adequate Stocking of First Aid Kits
- 1.2. Role of the Healthcare Professional in Emergencies in Primary Care
- 1.3. Medical-legal Management Issues in Primary Care Emergency Departments

Module 2. Cardiac Emergencies

- 2.1. Workshop: Reading and Interpreting an Electrocardiogram
- 2.2. Syncope
- 2.3. Acute Chest Pain
- 2.4. Acute Coronary Syndrome
 - 2.4.1. Non-ST-Elevation Acute Coronary Syndrome (NSTEMI)
 - 2.4.2. ST-Elevation Acute Coronary Syndrome (STEMI)
 - 2.4.3. The Heart Attack Code
- 2.5. Atrial Fibrillation
- 2.6. Pericarditis
- 2.7. Hypertensive Crisis
- 2.8. Acute Heart Failure
- 2.9. Acute Pulmonary Edema
- 2.10. Shock
- 2.11. Positive Ventilation Workshop: Boussignac CPAP

Module 3. Advanced Cardiovascular Support and Invasive Techniques in the Emergency Room

- 3.1. General Aspects
- 3.2. Basic Life Support and AED in Adults
- 3.3. Advanced Life Support in Adults
 - 3.3.1. Advanced Airway Management
 - 3.3.2. Arrhythmia Treatment
 - 3.3.3. Infusion Routes and Drugs
 - 3.3.4. Rapid Intubation Sequence Workshop

- 3.4. Basic Pediatric Life Support
- 3.5. Advanced Pediatric Life Support
 - 3.5.1. Recognition and Management of Critically Ill Children
 - 3.5.2. Advanced Airway Management
 - 3.5.3. Basics of Mechanical Ventilation in Pediatrics
 - 3.5.4. Infusion Routes and Drugs in Pediatric CPR
 - 3.5.5. Pediatric VAS Algorithms and Arrhythmia Treatment
- 3.6. Neonatal Resuscitation
 - 3.6.1. Post-resuscitation Stabilization and Neonatal Transport
- 3.7. Life Support in Special Cases
- 3.8. Invasive Procedures and Techniques in the Emergency Department

Module 4. Respiratory Emergencies

- 4.1. Acute Dyspnea
- 4.2. Acute Chronic Obstructive Pulmonary Disease (COPD)
- 4.3. Acute Bronchial Asthma
- 4.4. Pneumonia
- 4.5. Pneumothorax
- 4.6. Pulmonary Thromboembolism (PTE)
- 4.7. Hemoptysis
- 4.8. Workshop: Non-Invasive Mechanical Ventilation. BiPAP

Module 5. Neurological Emergencies

- 5.1. Acute Confusional Syndrome
- 5.2. Stroke
- 5.3. Headaches
- 5.4. Central Nervous System (CNS) Infections: Meningitis Encephalitis and Brain Abscess
- 5.5. Coma
- 5.6. Seizures

Module 6. Digestive Emergencies

- 6.1. Acute Pancreatitis
- 6.2. Acute Gastrointestinal Bleeding
- 6.3. Acute Abdominal Pain
- 6.4. Intestinal Obstruction
- 6.5. Acute Gastroenteritis
- 6.6. Acute Biliary Disease
- 6.7. Proctology Emergencies

Module 7. Nephrological and Urologic Emergencies

- 7.1. Acute Kidney Failure
- 7.2. Acute Urinary Retention
- 7.3. Renal Colic
- 7.4. Acute Scrotum
- 7.5. Rhabdomyolysis

Module 8. Pediatric Emergencies

- 8.1. Acute Febrile Episode
- 8.2. Febrile Seizures
- 8.3. Abdominal Pain
- 8.4. Gastrointestinal Disorders
- 8.5. Airway Diseases
- 8.6. Acute Headache
- 8.7. Child Abuse
- 8.8. Limping
- 8.9. Initial Care for Pediatric Polytrauma Patients

Module 9. Endocrine Emergencies

- 9.1. Hyperglycemia
 - 9.1.1. Diabetic Ketoacidosis
 - 9.1.2. Hyperosmolar Nonketotic Coma
- 9.2. Hypoglycemia
- 9.3. Addisonian Crisis
- 9.4. Other Endocrine Emergencies

Module 10. Ophthalmologic Emergencies

- 10.1. Eyelid and Lacrimal System Diseases
- 10.2. Pink Eye
- 10.3. Sudden Loss of Vision
- 10.4. Eye Injuries

Module 11. Otolaryngologic Emergencies

- 11.1. Infectious Processes in ENT
- 11.2. Foreign Objects in ENT
- 11.3. Epistaxis
- 11.4. Vertigo
- 11.5. Sudden Loss of Hearing

Module 12. Trauma and Neurosurgical Emergencies

- 12.1. Locomotor System Trauma and Hemorrhage
- 12.2. Lower Limb Trauma
- 12.3. Upper Limb Trauma
- 12.4. Cranioencephalic Trauma
- 12.5. Thoracic Trauma
- 12.6. Vertebral Trauma and Spinal Cord Injury
- 12.7. Lower Back Pain and Lumbosciatica
- 12.8. Abominal and Pelvic Trauma
- 12.9. Trauma during Pregnancy
- 12.10. Special Traumas

- 12.11. Out-of-Hospital Major Trauma Care. Polytrauma Code
- 12.12. Burns
- 12.13. Workshop on Mobilization and Immobilization of Trauma Patients
- 12.14. Workshop on Functional Bandages
- 12.15. Suture Workshop
- 12.16. Plaster Workshop
- 12.17. Acute and Chronic Wound Care Workshop

Module 13. Vascular Emergencies

- 13.1. Acute Limb Ischemia
- 13.2. Deep Vein Thrombosis (DVT)
- 13.3. Venous Insufficiency
- 13.4. Aneurysmal Disease

Module 14. Gynecological Emergencies

- 14.1. Gynecological Emergencies
 - 14.1.1. Gynecological Abdominal Pain
 - 14.1.2. Vulvovaginal Infectious Disease
- 14.2. Pregnancy, Birth and Postpartum Emergencies
 - 14.2.1. Genital Bleeding
 - 14.2.2. Hypertensive Emergencies in Pregnancy
 - 14.2.3. Drugs in Pregnancy and Lactation
- 14.3. Protocol for Rape Victim Care

Module 15. Psychiatric Emergencies

- 15.1. Psychotic Symptomatology. Hallucinations
- 15.2. Suicidal Crisis Intervention
- 15.3. Nursing Care for Psychomotor Agitation
- 15.4. Behavioral Disorders. Psychomotor Agitation
- 15.5. Alcohol Withdrawal Syndrome
- 15.6. Neuroleptic Malignant Syndrome
- 15.7. Anxiety Attack. Panic Attack
- 15.8. Workshop: Mechanical Restraint of an Agitated Patient





Module 16. Environmental Emergencies

- 16.1. Heat Illness
- 16.2. Bites and Stings
- 16.3. Anaphylaxis
- 16.4. Electrocutation
- 16.5. Dysbarism

Module 17. Skin Emergencies

- 17.1. Hypersensitivity Lesions
- 17.2. Dermatological Emergencies
- 17.3. Skin Infections

Module 18. Hematological Emergencies

- 18.1. Anemic Syndrome in the Emergency Department
- 18.2. Hemotherapy
- 18.3. Thrombopenia. Hemostasis Disorders
- 18.4. Anticoagulation and Thromboprophylaxis

Module 19. Oncologic Emergencies

- 19.1. Basic Management of Patients with Oncologic Emergencies
- 19.2. Febrile Syndrome in Oncologic Patients (Special Attention to Febrile Neutropenia)
- 19.3. Pain and Terminal Sedation
 - 19.3.1. Types of Pain
 - 19.3.2. Pain Treatment
 - 19.3.3. Terminal Sedation
- 19.4. Acute Complications of Chemotherapy Treatment

Module 20. Infectious Emergencies

- 20.1. Risk Exposure and Exposure to Potentially Harmful Material
- 20.2. Fever in H.I.V. Patients with Respiratory Focus
- 20.3. Fever of Unknown Origin
- 20.4. Urinary Tract Infections
- 20.5. Fever and Rash

Module 21. Toxicology Emergencies

- 21.1. General Management of Acute Poisoning
- 21.2. Alcohol Poisoning
- 21.3. Drug Poisoning
 - 21.3.1. Analgesic Poisoning
 - 21.3.2. Digitalis Poisoning
 - 21.3.3. Other Poisoning (Lithium, Ethylene Glycol, Methanol, Beta-Blockers)
 - 21.3.4. Psychotropic Drug Poisoning
- 21.4. Drug Poisoning
- 21.5. Caustic Poisoning
- 21.6. Carbon Monoxide Poisoning
- 21.7. Poisoning from Organophosphate, Carbamate and Organochlorine Insecticides

Module 22. Geriatric Emergencies

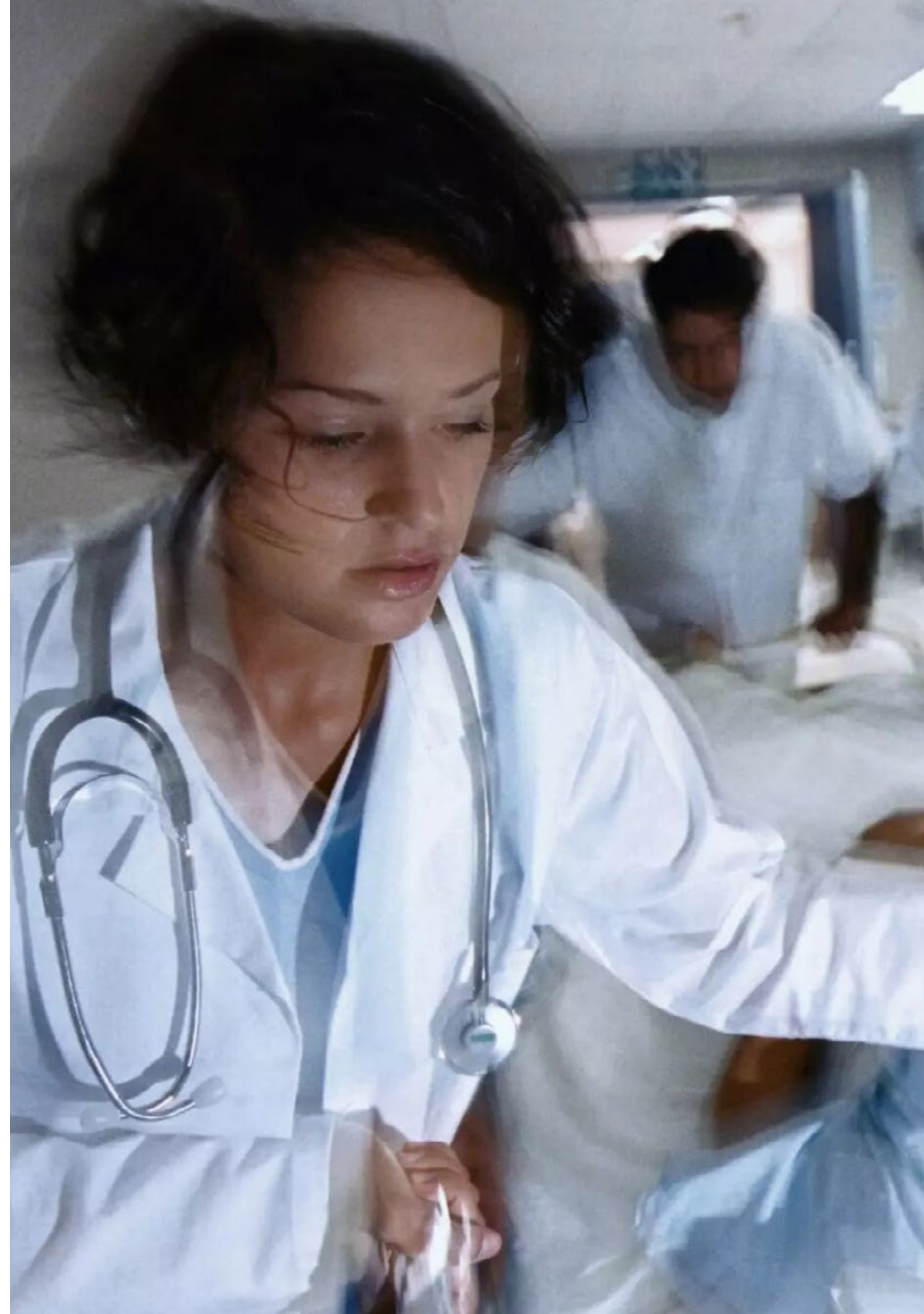
- 22.1. Geriatric Emergencies I
- 22.2. Geriatric Emergencies II

Module 23. Pharmacology in Emergencies

- 23.1. Pain Management
- 23.2. Sedoanalgesia in Emergencies
- 23.3. Adverse Effects to Medications

Module 24. Evidence-Based Medicine

- 24.1. How to Prepare a Research Protocol in Health
 - 24.1.1. Headings that Make Up the Protocol of a Research Project
 - 24.1.2. Editorial Staff articles with Scientific Structure
 - 24.1.3. Writing a Case Report, Review, Research Article
 - 24.1.4. Style in Scientific Communication
- 24.2. Master's Thesis: Academic Work of Bibliographic Review and Research
 - 24.2.1. The Importance of a Master's Thesis
 - 24.2.2. Proposal and Feasibility of a Master's Thesis
 - 24.2.3. Recommendations for the Preparation of the Master's Thesis
 - 24.2.4. Development and Evaluation of the Master's Thesis
 - 24.2.5. Recommendations for the Defence of the Master's Thesis





Module 25. Update on Coronavirus Infections

- 25.1. Discovery and Evolution of Coronaviruses
- 25.2. Main Microbiological Characteristics and Members of the Coronavirus Family
- 25.3. Epidemiological Changes in Coronavirus Infections from its Discovery to the Present
- 25.4. The Immune System and Coronavirus Infections
- 25.5. Pathogenesis and Pathophysiology of Coronavirus Infections
- 25.6. Risk Groups and Transmission Mechanisms of Coronaviruses
- 25.7. Natural History of Coronavirus Infections
- 25.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections
- 25.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling
- 25.10. Up-to-Date Management of Coronavirus Infections
- 25.11. Future Challenges in the Prevention, Diagnosis, and Treatment of Coronavirus

“

The Internship Program will help you to update your clinical practice in critical patient situations"

07 Clinical Internship

This Hybrid Master's Degree in Emergencis in Primary Care contains a 3-week internship that can be done once the online learning phase has been completed. This way, after completing this period, you will be able to put into practice the new procedures acquired, being able to come into contact with real patients, always under the guidance of renowned specialists from the health center itself.



“

You will have the opportunity to carry out an on-site stay in a prestigious center where you will be able to put into practice the most advanced procedures in the field of Emergencies in Primary Care"

The Internship Program consists of a stay in a rigorous aesthetic medicine clinic, lasting 3 weeks, from Monday to Friday with 8 consecutive hours of practical learning with an the health center specialist. In this way, the doctor will have access to real patients, always accompanied by a renowned professional, who will transmit the most modern and effective approaches in each case.

The practical education will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow learners who facilitate teamwork and multidisciplinary integration as transversal competencies for the practice of medicine (learning to be and learning to relate).

“ *Meet patients with all types of pathologies in a real healthcare environment and update your knowledge with the accompaniment of professionals from the clinical center itself* ”





The procedures described below will be the basis of the practical part of the specialization, and their implementation will be subject to the center's own availability and workload, the proposed activities being the following:

Module	Practical Activity
Organization and Control of the Emergency Department	Collaborate with the services and means available in the health care of emergency patients
	Perform evaluations on emergencies such as syncope, hypertensive crises or acute heart failure
	Act on possible bradyarrhythmias or tachyarrhythmias
	Participate in the organization of patient transfers to other areas or centers
Cardiac, Pulmonological and Neurological Emergencies	Assess the application of non-invasive mechanical ventilation BIPAP
	Assess emergencies such as pneumonia and pulmonary thromboembolism
	Manage the use of ultrasound in those cases that require it
	Analyze the use of invasive techniques in the emergency department
	Interpret electrocardiograms to detect possible pathologies
Surgical Emergencies and Pharmacology	Apply the appropriate procedures for the management of patient pain
	Support the specialist in the application of sedoanalgesia
	Prescribe, under the supervision of the specialist, the most appropriate pharmacology for each case
	Refer to surgery those patients who require critical interventions
Traumatology, Neurosurgery and Neurological Emergencies	Manage the current surgical services in the Emergency Department
	Evaluate the arrival of patients with stroke, seizures, headache or coma
	Manage patients with trauma, brain hemorrhage or burns
	Dictate the use of bandages, casts, sutures and dressings to be performed
Geriatric and Pediatric Emergencies	Assess the emergencies of old age
	Attend to common pediatric emergencies such as headaches, febrile episodes or abdominal pains
	Address communicative psychology with relatives of pediatric and elderly patients

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical learning period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



General Conditions for Practical Training

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Hybrid Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the students does not show up on the start date of the Hybrid Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who pass the Hybrid Master's Degree will receive a

certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: the Hybrid Master's Degree shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Hybrid Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Hybrid Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

08

Where Can I Do the Clinical Internship?

This Hybrid Master's Degree in Emergencies in Primary Care will allow the professional to carry out the 3 weeks of intensive practice in a center of recognized international prestige. In it, you will not only learn about real cases and patients with various pathologies, but you will also have access to numerous materials and technologies related to the diagnosis and monitoring of diseases of all kinds.



“

This program will give you access to the best health centers to carry out a rewarding internship that will update you in the field of Emergencies in Primary Care"

tech 46 | Where Can I Do the Clinical Internship?



The student will be able to complete the practical part of this Hybrid Master's Degree at the following centers:



Medicine

Hospital Recoletas Campo Grande

Country	City
Spain	Valladolid

Address: Pl. de Colón, s/n, 47007 Valladolid

Clinical center specialized in multidisciplinary healthcare

Related internship programs:

- Intensive Care Nursing
- Gynecologic Oncology





“

Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology"

09

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



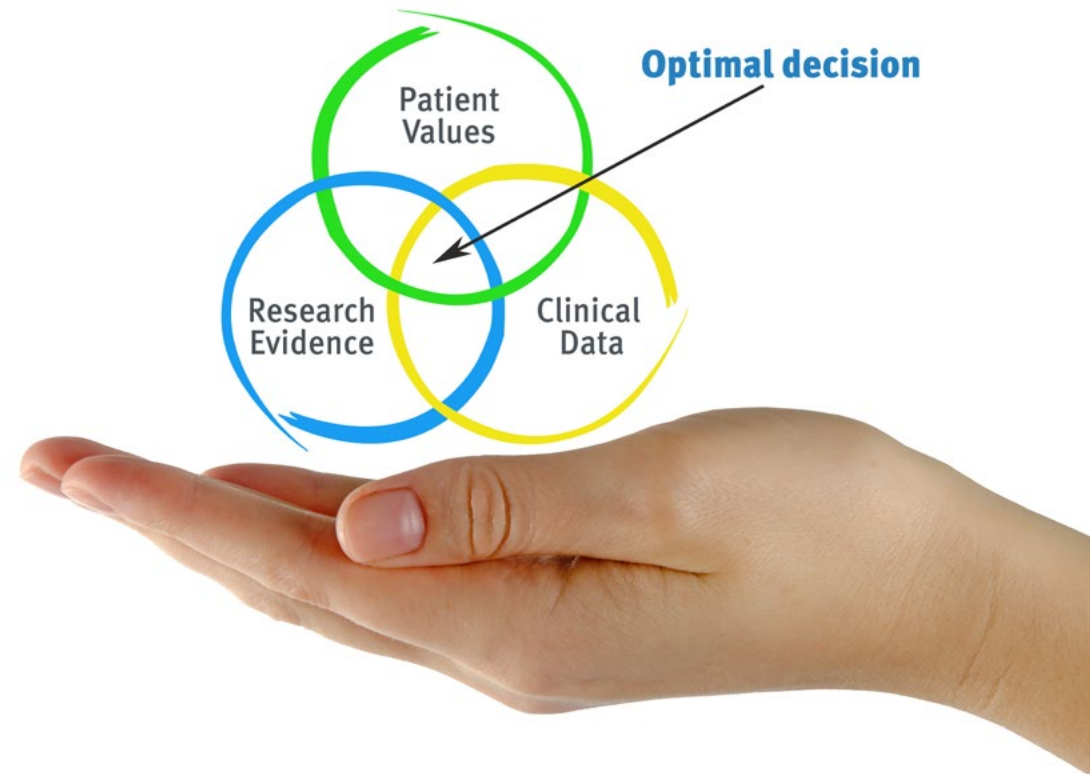
“

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

At TECH we use the Case Method

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

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gervas, 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.

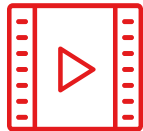
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

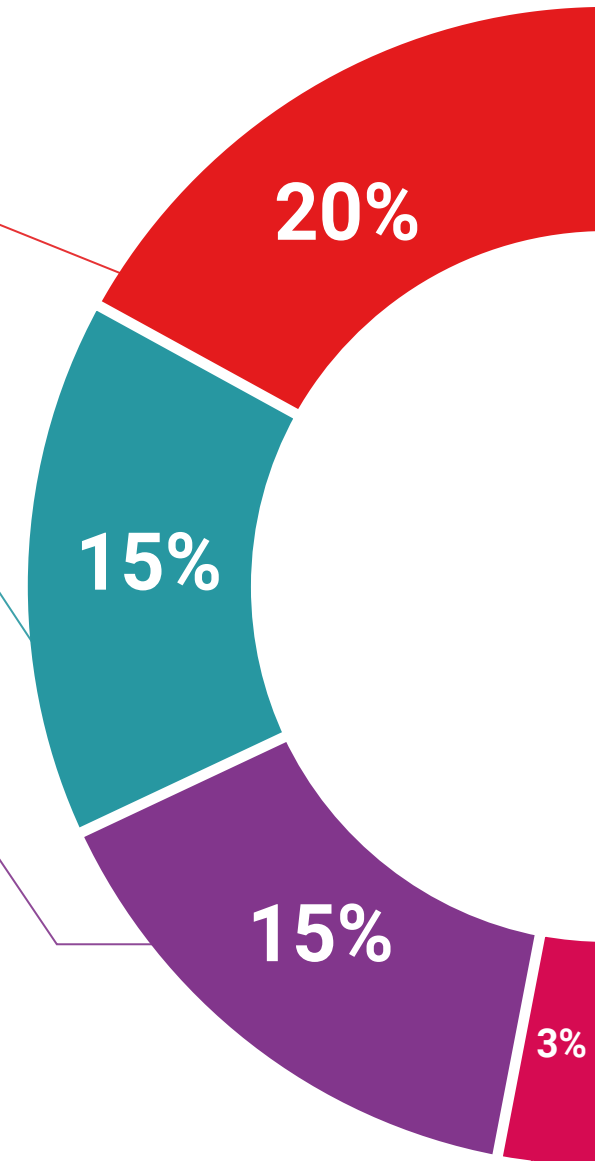
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

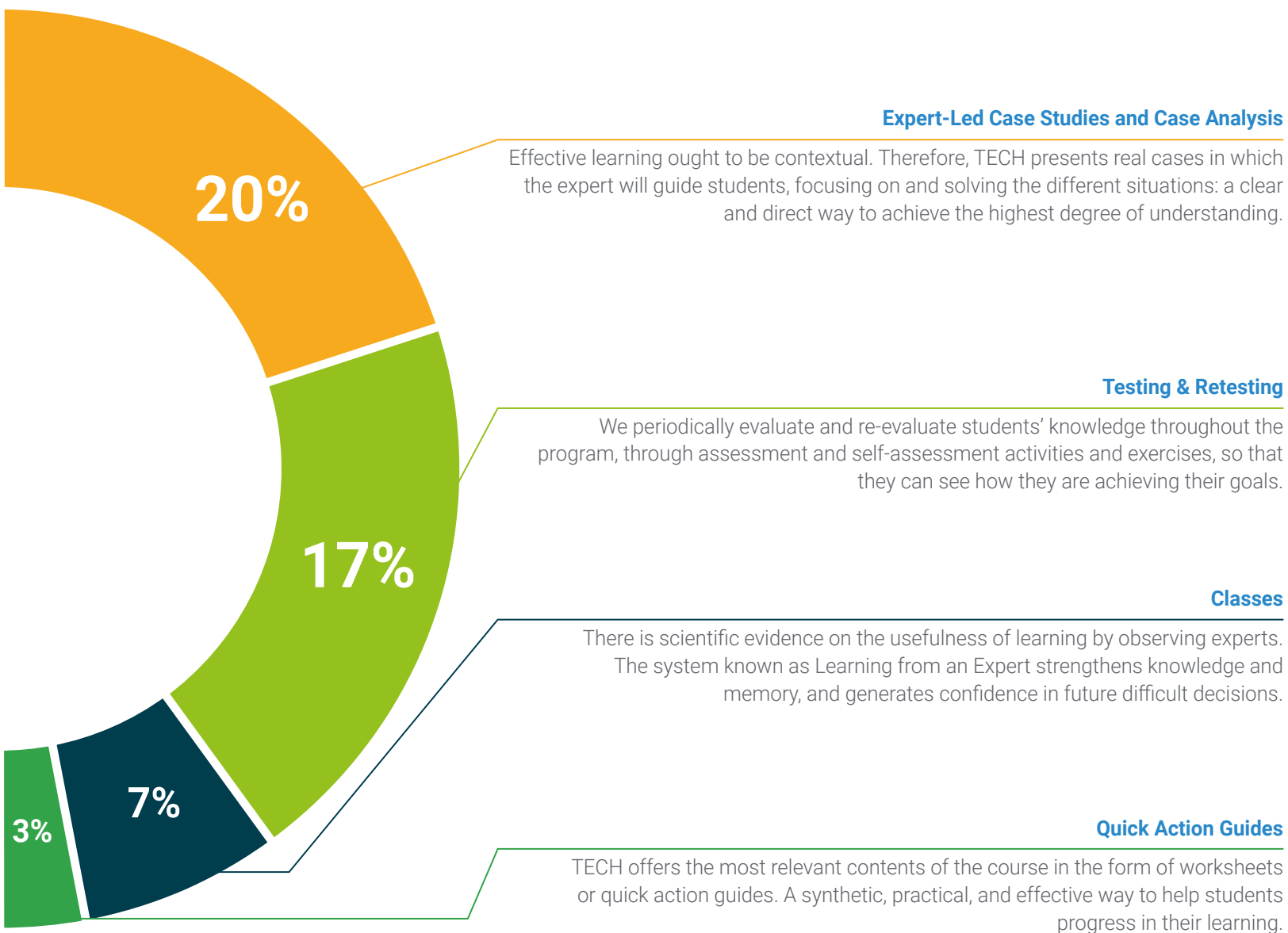
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





10 Certificate

The Hybrid Master's Degree in Emergencies in Primary Care guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Master's Degree diploma issued by TECH Global University.



“

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

This program will allow you to obtain your **Hybrid Master's Degree diploma in Emergencies in Primary 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.

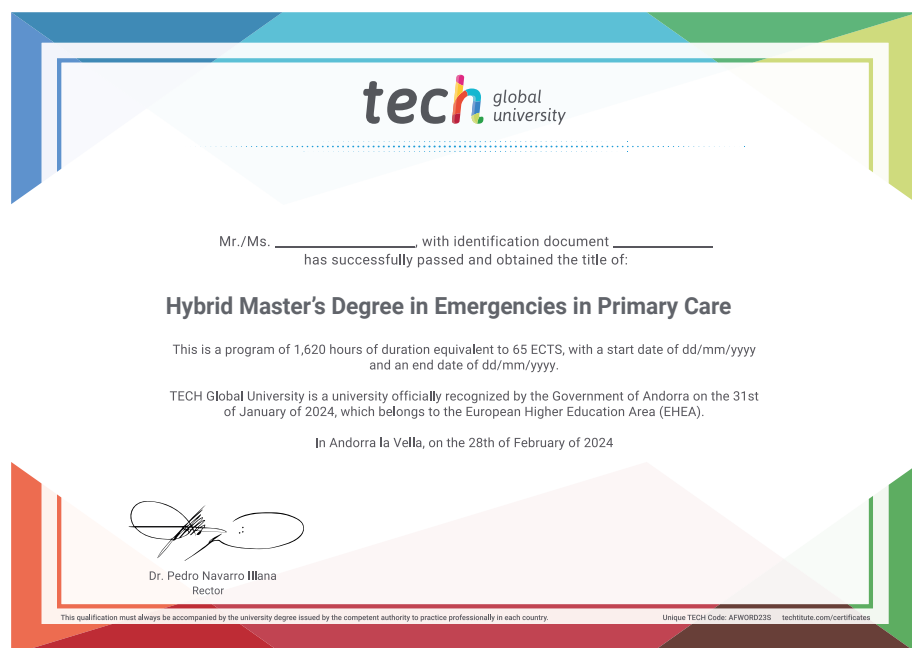
Title: **Hybrid Master's Degree in Emergencies in Primary Care**

Course Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Global University**

Recognition: **60 + 5 ECTS Credits**





Hybrid Master's Degree Emergencies in Primary Care

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 ECTS Credits

Hybrid Master's Degree

Emergencies in Primary Care

