



### Professional Master's Degree

### Emergencies in Primary Care

» Modality: online

» Duration: 12 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

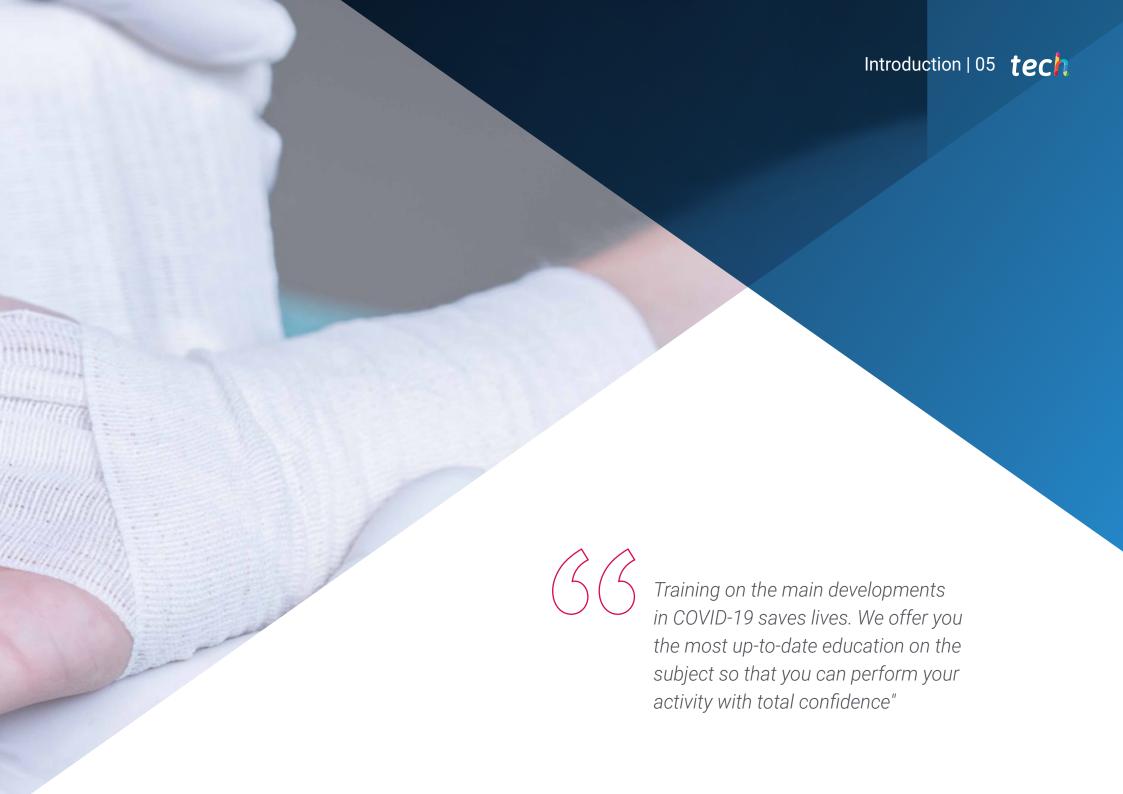
» Exams: online

Website: www.techtitute.com/in/medicine/professional-master-degree/master-emergencies-primary-care

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### tech 06 | Introduction

Emergency health care is an essential component of any health system, in which quality and ongoing care for individuals must be guaranteed. Primary care is the gateway to the health system, where patients often present with potentially serious conditions that require immediate and complex treatment, often accompanied by minimal resources.

Taking into account the large number of hours a day that Primary Care (PC) physicians are available to attend to emergencies, the importance of these, the current demands of patients and of professionals themselves to perform higher quality work, more than justifies the fact that PC physicians today can and should intervene in all emergencies that may arise, regardless of the level of severity. For this reason, the role of the primary care emergency physician is key.

This Professional Master's Degree includes the rules of action for the main urgent conditions that can be found in the consultation room on a regular basis and will help physicians make swift and accurate decisions.

The teaching body includes healthcare professionals from the field of Primary Care, who bring their experience to this program, as well as renowned specialists from leading scientific communities.

All knowledge is presented through high-quality multimedia content, analysis of clinical cases prepared by experts, classes, and video techniques that facilitate the exchange of knowledge and experience; maintain and update the education level of its members, create protocols for action and disseminate the most important developments in emergencies in primary care.

This **Professional 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:

- Practical cases presented by experts in Emergencies in Primary Care
- The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- The latest development in Emergencies in Primary Care
- Practical exercises where self-assessment can be used to improve learning
- Emphasis on innovative methodologies in Emergencies in Primary Care
- 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



This program addresses the main aspects of primary care emergencies, so that you will be able to deal with all those situations that occur on a regular basis and that can compromise the patient's life"

### Introduction | 07 tech



This Professional Master's Degree in Emergencies in Primary Care will help you keep up to date in order to provide complete and quality care to patients in critical situations"

The teaching staff includes medical professionals who bring their experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive training experience designed to train for real-life situations.

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

Learn about the main developments related to COVID-19 through this Professional Master's Degree and offer personalized care to your patients.

We have the best educational material, an innovative methodology and a 100% online training, which will facilitate your study.







### tech 10 | Objectives



#### **General Objective**

• Get up to date in the diagnostic and therapeutic procedures for the most frequent urgent and emergency situations that doctors usually deal with in Primary Care



Take the step to get up to date on the latest developments in Primary Care Emergencies"



#### **Specific Objectives**

- Define the structure and organization of emergency services in primary care
- Interpret the main signs in order to properly analyze an electrocardiogram in urgent and emergency situations 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
- Use general procedures and techniques applied to critical patients in emergency situations
- 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 regarding The Heart Attack Code
- Apply the specific procedures in acute coronary syndrome and assess the possibility prehospital fibrinolysis
- Get up to date on the therapeutic model in atrial fibrillation according to the latest scientific evidence
- Identify the signs and symptoms of patients who come to the primary care center with pericarditis

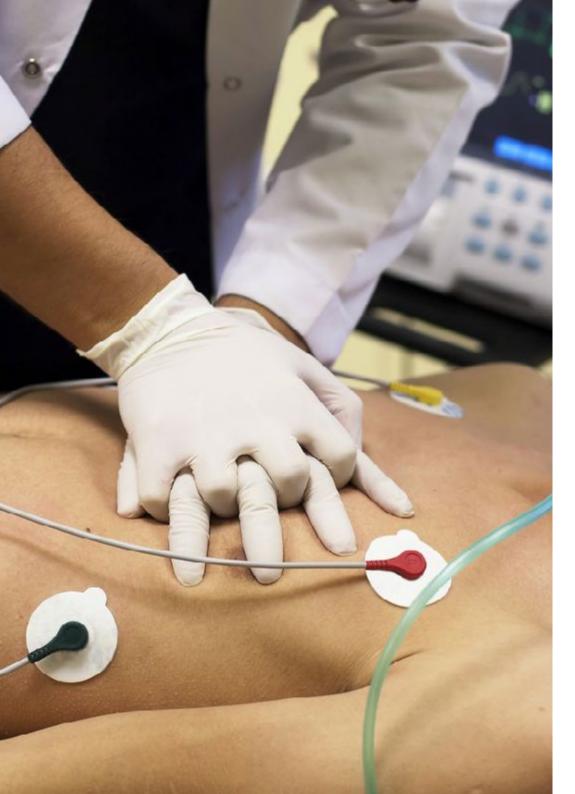
- Resolve a hypertensive emergency using the updated procedure of care
- Incorporate advances in the appropriate management of patients with congestive heart failure and acute pulmonary edema
- Review the basic concepts of non-invasive mechanical ventilation management
- Correct use of non-invasive mechanical ventilation through the Boussignac CPAP System
- Apply up-to-date basic and advanced CPR techniques for all ages
- 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
- Master the procedure of pediatric and neonatal cardiopulmonary resuscitation in the primary care setting
- Demonstrate the correct sequence of transcutaneous pacemaker application
- Define proper use of pulse oximetry and capnography devices
- 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 main clinical signs and symptoms of pneumothorax

- 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
- Describe the initial management of the main neurological emergencies in the out-ofhospital 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
- 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
- Define the diagnostic criteria for acute renal failure
- Use appropriate treatment for acute renal colic

### tech 12 | Objectives

- Resolving 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
- Interpret the fundamental alterations of glycemic metabolism
- Apply appropriate measures to reverse a diabetic ketoacidosis situation
- Recognize the semiology of an Addisonian crisis
- Explain the main acute ENT and ophthalmologic diseases
- Indicate the appropriate treatment for pink eye
- Use appropriate complementary tests to detect acute vision loss
- Compare the differences between anterior and posterior epistaxis
- Analyze the different traumatologic conditions in Primary Care emergencies
- 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
- 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
- Identify the different urgencies and emergencies in pediatrics
- Recognize the symptoms and signs of severity in case of acute febrile episode
- 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
- Distinguish the differential diagnosis of abdominal pain, vomiting, and diarrhea
- 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
- 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
- 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
- Identify the main immunological emergency pathologies and manage patients suffering from anaphylactic reactions
- Identify the concept of the near-drowning patient
- Discriminate between the different treatments to be applied in case of bites and stings
- Recognize the most frequent infectious, inflammatory, autoimmune, and tumor diseases in primary care
- Correctly apply hemotherapy in patients with hematological conditions
- Distinguish between the different anticoagulant treatments
- Use therapeutic measures for oncology patients with neutropenia
- Manage intoxicated patients and injuries caused by environmental agents
- 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
- Differentiate the pathophysiological characteristics of elderly patients



### Objectives | 13 tech

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





### tech 16 | Skills



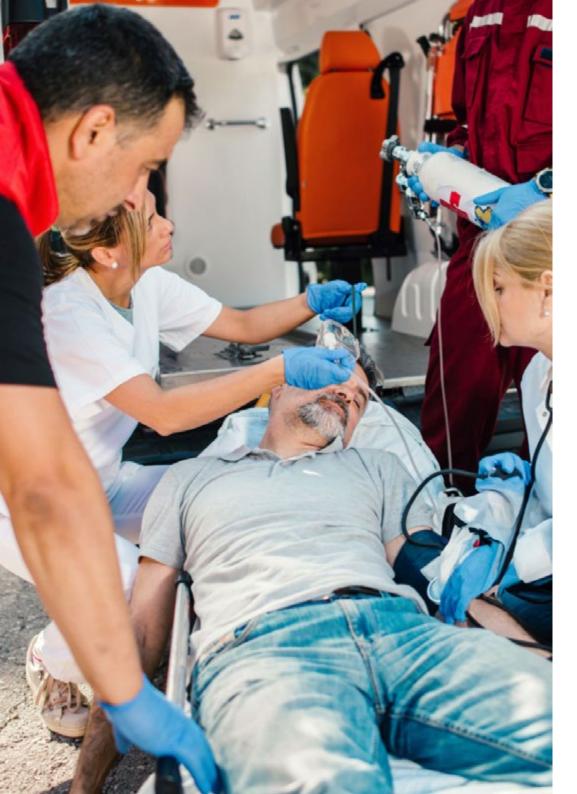
#### **General Skills**

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



### Specific Skills

- 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 outof-hospital emergencies

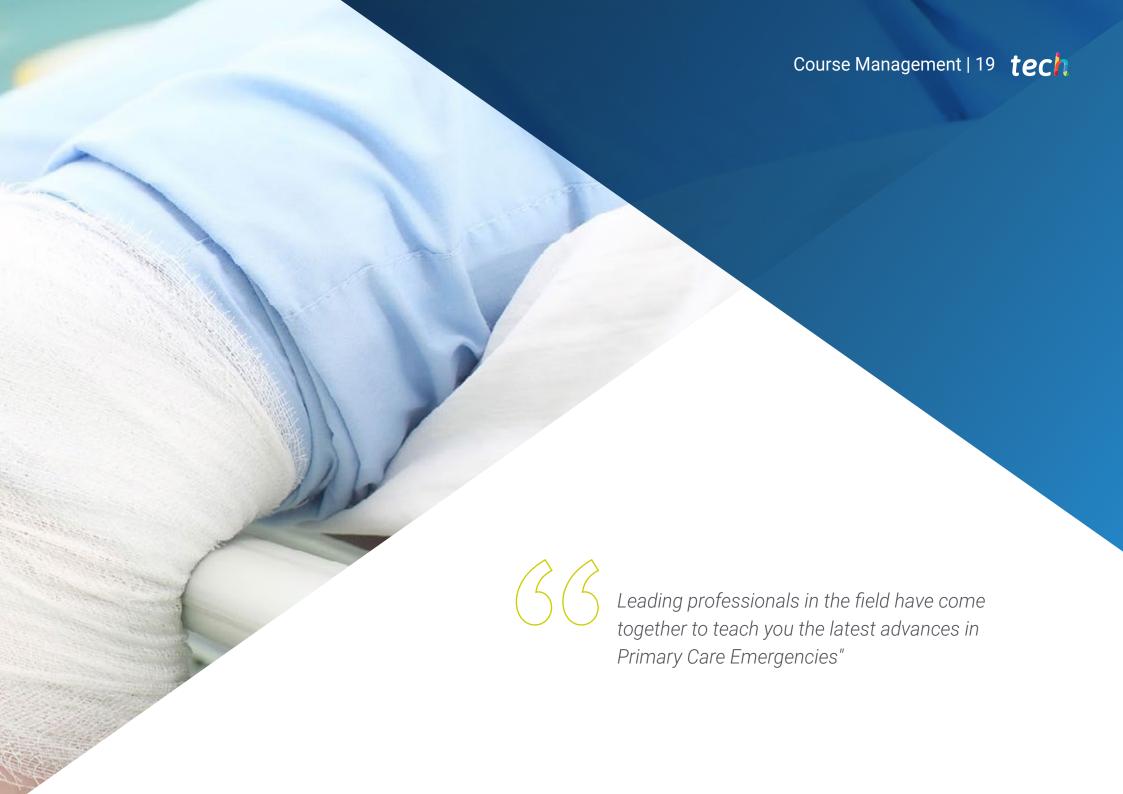


- Assume duties in the field of critical and emergency care in primary care
- Adapt their decision-making to the current situation, environment, time, and available resources
- Work with patients that have been diagnosed with or present symptoms of coronavirus, complying with all safety measures
- Perform diagnostic tests to detect possible cases of coronavirus



Take advantage of the opportunity and take the step to get up to date on the latest developments in the approach to primary health care"





#### 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 Chair of the American College of Emergency Physicians (ACEP) Task Force on New Practice Models, holding various positions in ACEP, the Society for Academic Emergency Medicine and the American Academy of Emergency Medicine.



### Dr. M. Pines, Jesse

- National Director of Clinical Innovation at US Acute Care Solutions, United States.
- Emergency Physician at Allegheny Health Network
- Professor of Emergency Medicine at The George Washington University, USA
- Professor of Emergency Medicine at Drexel University
- Director of the Medical Research Fellowship Program at The 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 from the University of Pennsylvania



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#### Management



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

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

#### **Professors**

#### Dr. Brasó Aznar, José Vicente

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







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#### 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 Primary Care Emergencies
- 1.3. Medicolegal 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 (NSTEACS)
  - 2.4.2. ST-Elevation Acute Coronary Syndrome (STEACS)
  - 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. Basic Vital Support
  - 3.1.1. Basic Life Support with Automatic External Defibrillator.
  - 3.1.2. Foreign Object Airway Obstruction.
- 3.2. Action in Response to Bradyarrhythmias.
- 3.3. Action in Response to Tachyarrhythmias.
- 3.4. Advanced Vital Support
  - 3.4.1. Advanced Airway Management.
  - 3.4.2. Arrhythmia Treatment.
  - 3.4.3. Infusion Routes and Drugs.
  - 3.4.4. Rapid Intubation Sequence Workshop



- 3.5. Invasive Procedures and Techniques in the Emergency Department
  - 3.5.1. External Pacemaker
  - 3.5.2. Electrical Cardioversion
  - 3.5.3. Defibrillation in Emergencies
- 3.6. Workshop: Echoscopy Management in the Emergency Department
- 3.7. Basic and Advanced Pediatric Life Support
  - 3.7.1. Basic Pediatric Life Support
  - 3.7.2. Airway and Ventilation in Pediatrics.
  - 3.7.3. Infusion Routes and Drugs. Diagnosis and Treatment of Arrhythmias
  - 3.7.4. Neonatal Resuscitation.

#### Module 4. Pneumological 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. Seizures.
- 5.4. Headaches.
- 5.5. Central Nervous System (CNS) Infections
- 5.6. Coma.

#### Module 6. Digestive Emergencies

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

- 8.1. Hyperglycemia
  - 8.1.1. Diabetic ketoacidosis
  - 8.1.2. Hyperosmolar Nonketotic Coma
- 8.2. Hypoglycemia
- 8.3. Addisonian Crisis
- 8.4. Other Endocrine Emergencies

#### Module 9. Ophthalmologic Emergencies

- 9.1. Eyelid and Lacrimal System Diseases
- 9.2. Pink Eye
- 9.3. Sudden Loss of Vision.
- 9.4. Eye Injuries.

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#### Module 10. Otolaryngologic Emergencies

- 10.1. Infectious Processes in ENT
- 10.2. Foreign Objects in ENT.
- 10.3. Epistaxis
- 10.4. Vertigo.
- 10.5. Sudden Loss of Hearing.

#### Module 11. Trauma and Neurosurgical Emergencies

- 11.1. Lower Back Pain and Lumbosciatica
- 11.2. Trauma. General Aspects
- 11.3. Lower Extremity Trauma
- 11.4. Upper Extremity Trauma
- 11.5. Body and Head Trauma
- 11.6. Cranioencephalic Trauma. Skull Fractures and Contusions
- 11.7. Thoracic Trauma. Rib Fractures and Contusions
- 11.8. Vertebral Fractures and Contusions
- 11.9. Cerebral Hemorrhage
- 11.10. Spinal Cord Injury
- 11.11. Out-of-Hospital Major Trauma Care. Polytrauma Code
- 11.12. Injuries and Burns
- 11.13. Workshop on Mobilization and Immobilization of Trauma Patients
- 11.14. Workshop on Functional Bandages
- 11.15. Plaster Workshop
- 11.16. Acute and Chronic Wound Care Workshop
- 11.17. Suture Workshop



#### Module 12. Vascular Emergencies

- 12.1. Acute Limb Ischemia
- 12.2. Deep Vein Thrombosis
- 12.3. Venous Insufficiency
- 12.4. Aneurysmal Disease

#### Module 13. Pediatric Emergencies

- 13.1. Acute Febrile Episode
- 13.2. Febrile Seizures
- 13.3. Abdominal Pain
- 13.4. Gastrointestinal Disorders
- 13.5. Airway Diseases.
- 13.6. Acute Headache
- 13.7. Child Abuse.
- 13.8. Limping
- 13.9. Initial Care for Pediatric Polytrauma Patients

#### Module 14. Gynecological Emergencies

- 14.1. Gynecological Emergencies
  - 14.1.1. Gynecological Abdominal Pain
  - 14.1.2. Vulvovaginal Infectious Disease
- 14.2 Pregnancy 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
- 14.4. Birth

#### Module 15. Psychiatric Emergencies

- 15.1. Psychotic Symptomatology. Hallucinations
- 15.2. Suicidal Crisis Intervention
- 15.3. Behavioral Disorders. Psychomotor Agitation
- 15.4. Alcohol Withdrawal Syndrome
- 15.5. Neuroleptic Malignant Syndrome.
- 15.6. Anxiety Attack. Panic Attack
- 15.7. 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. Electrocution.
- 16.5. Dysbarism.

#### Module 17. Skin Emergencies

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

#### Module 18. Skin Emergencies

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

### tech 30 | Structure and Content

#### Module 19. Infectious Emergencies

- Risk Exposure and Exposure to Potentially Contaminating Material.
   EVE Code
- 19.2. Fever in H.I.V. Infected Patients
- 19.3. Fever of Unknown Origin
- 19.4. Urinary Tract Infections
- 19.5. Fever and Rash

#### Module 20. Oncologic Emergencies

- 20.1. Basic Management of Patients with Oncologic Emergencies
- 20.2. Febrile Syndrome in Oncologic Patients (Special Attention to Febrile Neutropenia)
- 20.3. Pain and Terminal Sedation
  - 20.3.1. Types of Pain
  - 20.3.2. Pain Treatment
  - 20.3.3. Terminal Sedation
- 20.4 Acute Complications of Chemotherapy Treatment
  - 20.4.1. Mucositis
  - 20.4.2. Acneiform Rash
  - 20.4.3. Nausea and Vomiting
  - 20.4.4. Diarrhea
  - 20.4.5. Cachexia-Anorexia-Asthenia Syndrome

#### 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. Recovery of Quality Information Specialized in Health Sciences
  - 24.1.1. Knowledge of Different Information Sources: General Search Engines (Up-to-Date), Databases (PubMed, Cinahl) and *Clearinghouse* of Clinical Practice Guidelines
  - 24.1.2. Design of Search Strategies with Subject Headings (MeSH), Free Language Terms and Boolean Operator Algebra. PICO Questions (Patient, Intervention, Comparison, Outcome)
  - 24.1.3. Refinement of Search Results: Methodological Filters.
  - 24.1.4. Creating Bibliographic Alerts
- 24.2. Bibliographic Reference Management
  - 24.2.1. Importing References Directly from Databases (PubMed, Cinahl)
  - 24.2.2. PDF Metadata Extraction
  - 24.2.3. Use of *Tags* or Metatags to Classify the Bibliography
  - 24.2.4. Including References in the Text (Word). Vancouver Style
  - 24.2.5. Cloud Search Saving
- 24.3. Critical Reading on Outcomes Research
  - 24.3.1. Quantitative Research Designs (Observational, Quasi-Experimental, Experimental) Data Interpretation and Techniques for Controlling Reliability, Validity, and Scientific Accuracy
  - 24.3.2. Qualitative Research Designs and Identification of the Social and Cultural Components of Health and Illness. Individual Results and Populations. Clinical, Economic, and Satisfaction Results
  - 24.3.3. Instruments for Critical Reading: AGREE Instrument.

- 24.4. Writing Articles with Scientific Structure and Publishing Results in High Impact Journals
  - 24.4.1. Standardized Structure of a Scientific Article
  - 24.4.2. Open Access Policy and Protocol for Publishing an Article
  - 24.4.3. Digital Autonomy in Public Participation (Blogs and Social Networks). Digital Identity and Privacy on the Web
  - 24.4.4. Intellectual Property: Licenses and Symbols that Reflect the Attribution and Recognition of the Authorship of Works in Different Media: Text, Images, and Videos

#### Module 25. Update on Coronavirus Infections

- 25.1. Discovery and Evolution of Coronaviruses.
  - 25.1.1. Discovery of Coronaviruses.
  - 25.1.2. Global Trends in Coronavirus Infections.
- 25.2. Main Microbiological characteristics and Members of the Coronavirus Family.
  - 25.2.1. General Microbiological Characteristics of Coronaviruses.
  - 25.2.2. Viral Genome.
  - 25.2.3. Principal Virulence Factors
- 25.3. Epidemiological Changes in Coronavirus Infections from its Discovery to the Present.
  - 25.3.1. Morbidity and Mortality of Coronavirus Infections from their Emergence to the Present.
- 25.4. The Immune System and Coronavirus Infections.
  - 25.4.1. Immunological Mechanisms Involved in the Immune Response to Coronaviruses.
  - 25.4.2. Cytokine Storm in Coronavirus Infections and Immunopathology.
  - 25.4.3. Modulation of the Immune System in Coronavirus Infections.
- 25.5. Pathogenesis and Pathophysiology of Coronavirus Infections.
  - 25.5.1. Pathophysiological and Pathogenic Alterations in Coronavirus Infections.
  - 25.5.2. Clinical Implications of the Main Pathophysiological Alterations
- 25.6. Risk Groups and Transmission Mechanisms of Coronaviruses.
  - 25.6.1. Main Sociodemographic and Epidemiological Characteristics of Risk Groups Affected by Coronavirus
  - 25.6.2. Coronavirus Mechanisms of Transmission.
- 25.7. Natural History of Coronavirus Infections.
  - 25.7.1. Stages of Coronavirus Infection.

- 25.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections.
  - 25.8.1. Sample Collection and Shipment.
  - 25.8.2. PCR and Sequencing.
  - 25.8.3. Serology Testing.
  - 25.8.4. Virus Isolation.
- 25.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling.
  - 25.9.1. Biosafety Measures for Coronavirus Sample Handling.
- 25.10. Up-to-Date Management of Coronavirus Infections.
  - 25.10.1. Prevention Measures.
  - 25.10.2. Symptomatic Treatment
  - 25.10.3. Antiviral and Antimicrobial Treatment in Coronavirus Infections.
  - 25.10.4. Treatment of Severe Clinical Forms.
- 25.11. Future Challenges in the Prevention, Diagnosis, and Treatment of Coronavirus.
  - 25.11.1. Global Challenges for the Development of Prevention, Diagnostic, and Treatment Strategies for Coronavirus Infections.



A unique, key, and decisive training experience to boost your professional development"





### tech 34 | Methodology

#### 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.





### Methodology | 37 tech

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 relearn). 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.



Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

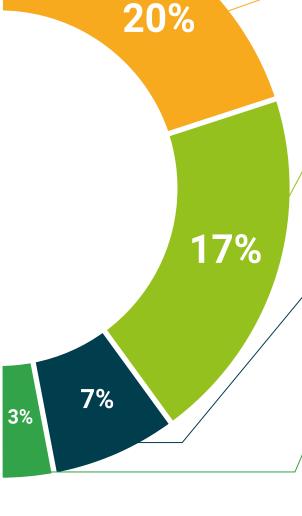
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









### tech 42 | Certificate

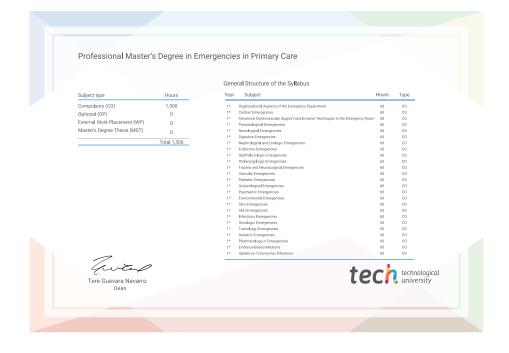
This **Professional Master's Degree in Emergencies in Primary Care** contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Master's Degree in Emergencies in Primary Care
Official N° of hours: 1,500 h.





<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificat issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

technological university

# **Professional Master's** Degree

Emergencies in **Primary Care** 

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

