

# Postgraduate Certificate

## Life-Threatening Emergencies





## Postgraduate Certificate Life-Threatening Emergencies

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Global University
- » Accreditation: 11 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/life-threatening-emergencies](http://www.techtute.com/us/medicine/postgraduate-certificate/life-threatening-emergencies)

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# 01

# Introduction

Life-Threatening Emergencies are time-dependent processes that require constant professional development and updating in order to be approached with rigor and assurance from a medical perspective. This program is designed to provide physicians with practical updates on urgent pathological processes in vital systems, enabling them to act with quality and safety when faced with patients in life-threatening situations.





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*This Postgraduate Certificate covers medical procedures for Life-Threatening Emergencies, enabling you to deal with situations that could endanger a patient's life. Learn how to identify, provide initial treatment, and transport patients in life-threatening emergencies”*

Medical emergencies require specialized care to ensure that the person's life support is maintained while acting on potential problems in the body's vital systems to prevent future complications to the person's health.

This Postgraduate Certificate in Life-Threatening Emergencies is designed to update the physician's knowledge in cardiac, respiratory, neurological, digestive, endocrinometabolic and hydroelectrolytic emergency care, in order to provide quality medical care to patients with disorders and health problems with organic and vital system involvement.

Upon completion of the Postgraduate Certificate, students will be able to prioritize situations, solve problems, and make decisions when caring for patients in medical emergencies, both adults and children.

In order to facilitate this update, TECH has been developed a program which provides a syllabus with theoretical-practical perspective and numerous teaching materials. These include high-quality multimedia resources, specialized readings, case studies and a Masterclass. In this session, the graduate will have the opportunity to access advanced, rigorous information, presented by one of the great international experts in Emergency Medicine.

In this way, students will have the opportunity to increase their competencies and professional skills in critical situations, thanks to an educational proposal that stands out for its disruptive pedagogical methodology and for having great specialists.

This **Postgraduate Certificate in Life-Threatening Emergencies** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ Clinical cases presented by experts in emergencies
- ♦ 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
- ♦ Latest diagnostic and therapeutic developments in the management of cardiovascular and respiratory emergencies
- ♦ Interactive learning system based on algorithms for decision making on the different clinical situations presented
- ♦ 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 available from any fixed or portable device with an Internet connection



*Enhance your skills in the care of patients in disaster situations thanks to the Masterclass developed by an international medical professional"*

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*This Postgraduate Certificate is the best investment you can make when choosing a refresher program, for two key reasons: not only will you update your knowledge on Life-Threatening Emergencies, but you will also earn a diploma from TECH Global University”*

The program's teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

*This online methodology allows you to practice in a simulated environment through clinical cases.*

*Seize the opportunity to update your knowledge of Life-Threatening Emergencies.*



# 02 Objectives

The main objective of the program is to develop theoretical and practical learning so that physicians can master the practical and rigorous approach to the main Life-Threatening Emergencies in patients.







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*This refresher program will generate a sense of confidence when practicing medicine, which will help you grow both personally and professionally”*



## General Objective

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- Update the necessary knowledge in the care of patients in critical situations, in order to increase the quality and safety of healthcare practice in emergencies.

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*Seize the opportunity and take the step to get up-to-date on the latest developments in care for patients in a Life-Threatening Situation”*





## Specific Objectives

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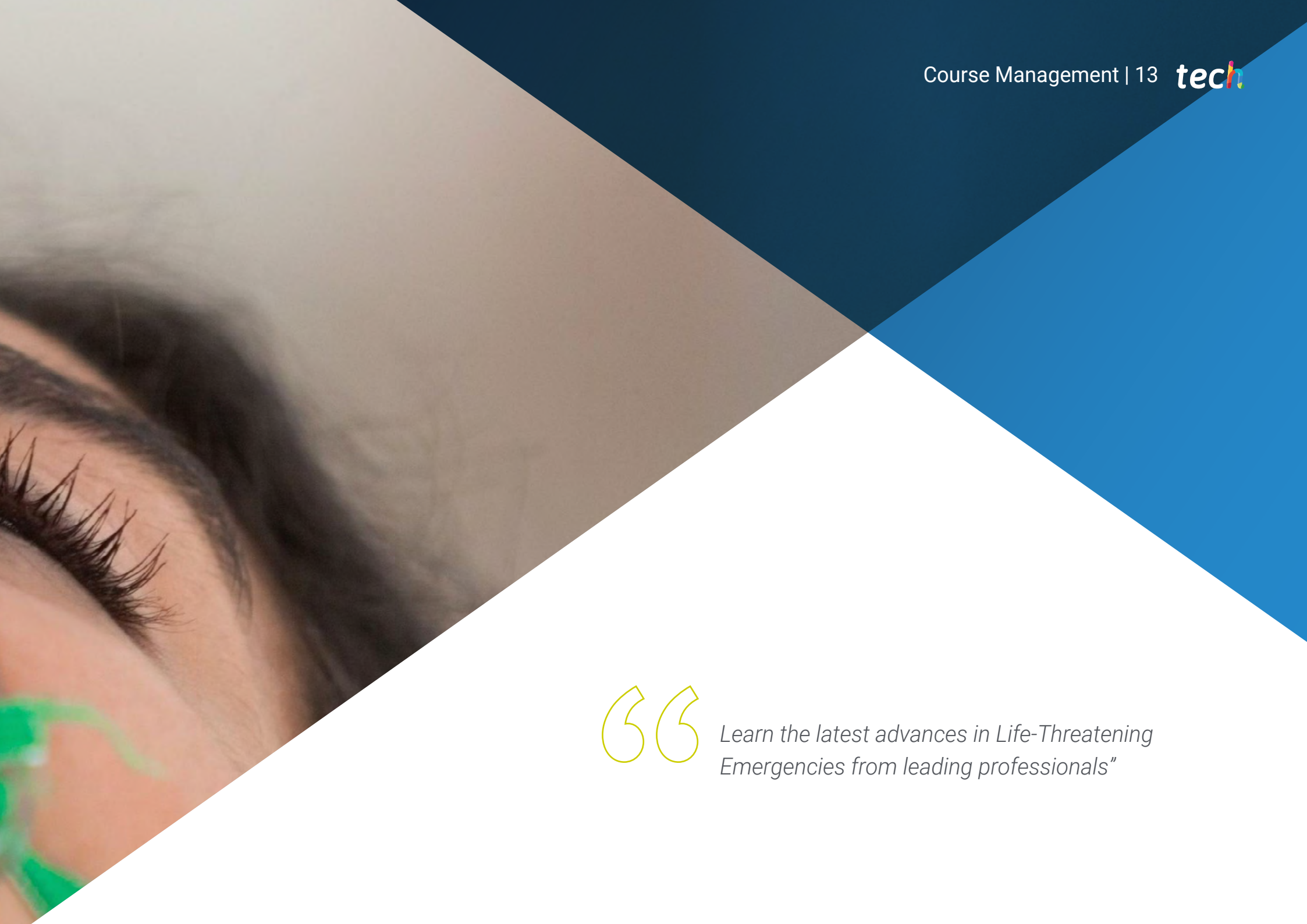
- Differentiate between the concepts of accidents, emergencies and disasters.
- Identify the fundamentals of emergency health care.
- Apply clinical and non-clinical professional skills in emergencies
- Define the structure and organization of the accident and emergency services.
- Use medical records in the emergency department and understand the most relevant legal and ethical aspects of health care in emergencies.
- Prioritize, organize and manage patient care in the most efficient way through triage
- Understand the basic workings of an emergency coordination center
- Establishing the diagnosis and management of acute pericarditis and cardiac tamponade
- Establish the diagnosis and management of acute coronary syndrome
- Detect urgent patterns in diabetic patients, elderly or dementia patients, as they are paucisymptomatic and this could mask the characteristics of a potentially life-threatening pain
- Recognize acute dyspnea and its most frequent causes.
- Establish the diagnostic approach to acute dyspnea in emergency departments
- Identify the main clinical manifestations of aggravation of acute bronchial asthma crisis
- Describe treatments in exacerbations of bronchial asthma according to its severity
- Identify the case of cerebral vascular accident (CVA) and provide timely treatment.
- Review the types of studies for the identification of the stroke.
- Enable the approach of physicians involved in the initial care of CVA to a practical and simple way of updated guidance.
- Present an update on current diagnostic methods and the various therapies available, on a case-by-case basis, for acute ischemic stroke (AIS)
- Define acute abdominal pain
- Conduct effective patient history investigation for acute gastrointestinal bleeding and vascular disorders
- Establish procedures to identify acute gastroenteritis
- Establish protocols for acute pancreatitis
- Have a broad knowledge of the definition, pathophysiology and classification according to severity of the most frequent endocrinometabolic emergencies.
- Establish diagnosis and apply effective treatment to these emergencies.

03

# Course Management

The materials were created by a team of leading professionals in both hospital and out-of-hospital emergency care, who work in leading hospitals and emergency care units. Bringing to the program the experience they have gained throughout their careers.





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*Learn the latest advances in Life-Threatening Emergencies from leading professionals”*

## International Guest Director

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

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

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

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



## Dr. Salah Issa, Fadi

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- ♦ Director of the BIDMC Disaster Medicine Fellowship at Harvard Medical School, Boston, United States
- ♦ Co-supervisor of the European Board of Disaster Medicine Thesis at the University of Eastern Piedmont
- ♦ Fellowship in Disaster Medicine Research at Harvard Medical School
- ♦ Emergency Physician at King Faisal Specialist Hospital & Research Center
- ♦ Team Leader and Emergency Physician at Armed Forces Hospitals-Southern Region, Khamis Mushayt, KSA
- ♦ Bachelor of Medicine and Surgery from the University of Medicine and Pharmacology at Cariova, Romania
- ♦ Disaster Medicine and Emergency Management from Harvard Medical School Medical Doctors in BIDMC
- ♦ Master's Degree in Disaster Medicine from the University of Piemonte Orientale
- ♦ Member of: Chairman of the Counterterrorism Special Interest Group of the World Association of Disaster and Emergency Medicine (WADDEM) and Academia of the Faculty of Medicine of Harvard

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

## Guest Directors



### **Dr. Rivera Núñez, María Angélica**

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





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

- Coordinator at the Adult Emergency Department at La Paz University Hospital
- Emergency Doctor at La Paz University Hospital
- Specialist in Family and Community Medicine at La Paz University Hospital
- Doctorate in Medicine from the Autonomous University Madrid
- Degree in Medicine from the University of Granada
- Master's Degree in Patient Safety
- Master's Degree in Bioethics
- Master's Degree in Palliative Medicine
- Life Support Instructor (BLS, ALS, ILS, ATLS)
- Clinical Simulation Instructor
- Member of the Healthcare Ethics Committee at La Paz University Hospital

## Management



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

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

## Professors

### Dr. Brasó Aznar, José Vicente

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



04

# Structure and Content

The content structure has been designed by a team of professionals who are knowledgeable about the implications of specialization in daily medical practice in emergency care, aware of the current relevance of specialization in order to be able to act in the presence of patients with urgent conditions, and committed to quality teaching through new educational technologies.





“

*This Postgraduate Certificate in Life-Threatening Emergencies , contains the most complete and up-to-date scientific program on the market”*

## Module 1. Overview

- 1.1. Definitions and Concepts
- 1.2. Comprehensive care for medical emergencies and emergencies
- 1.3. Bioethics in urgencies, emergencies and catastrophes

## Module 2. Cardiovascular Emergencies

- 2.1. Arrhythmias
- 2.2. Syncope
- 2.3. Acute Chest Pain
- 2.4. Acute Coronary Syndrome. The Heart Attack Code
- 2.5. Pericarditis, Cardiac Tamponade
- 2.6. Heart Failure
- 2.7. Acute Pulmonary Edema
- 2.8. Deep Vein Thrombosis (DVT)
- 2.9. Pulmonary Thromboembolism (PTE)
- 2.10. Aortic Dissection
- 2.11. Hypertensive Emergencies
- 2.12. Shock

## Module 3. Respiratory Emergencies

- 3.1. Respiratory Emergencies
- 3.2. Pneumonia
- 3.3. COPD Exacerbation
- 3.4. Pleuritis and Pleural Effusion
- 3.5. Pneumothorax
- 3.6. Hemoptysis





#### Module 4. Neurological Emergencies

- 4.1. Neurological Assessment of a Critically Ill Patient
- 4.2. Vascular Disorders, Ictus Code
- 4.3. Alterations in the Level of Consciousness
- 4.4. Intracranial Hypertension.
- 4.5. Central Nervous System Infections
- 4.6. Seizures and Status Epilepticus.
- 4.7. Headaches
- 4.8. Vertiginous Syndrome (Vertigo)

#### Module 5. Digestive Emergencies

- 5.1. Acute Abdominal Pain
- 5.2. Acute Gastrointestinal Hemorrhage and Vascular Disorders
- 5.3. Intestinal Obstruction
- 5.4. Acute Gastroenteritis
- 5.5. Acute Pancreatitis
- 5.6. Acute Biliary Disease
- 5.7. Acute Anal Disease.

#### Module 6. Endocrinometabolic Emergencies

- 6.1. Glucose Metabolism Disorders.
- 6.2. Thyroid Emergencies
- 6.3. Acid-Base Balance Disorders
- 6.4. Water Balance Disorders
- 6.5. Electrolyte Balance Disorders

# 05

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.





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*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”*

### 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 assess 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.

## The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



#### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



#### Interactive Summaries

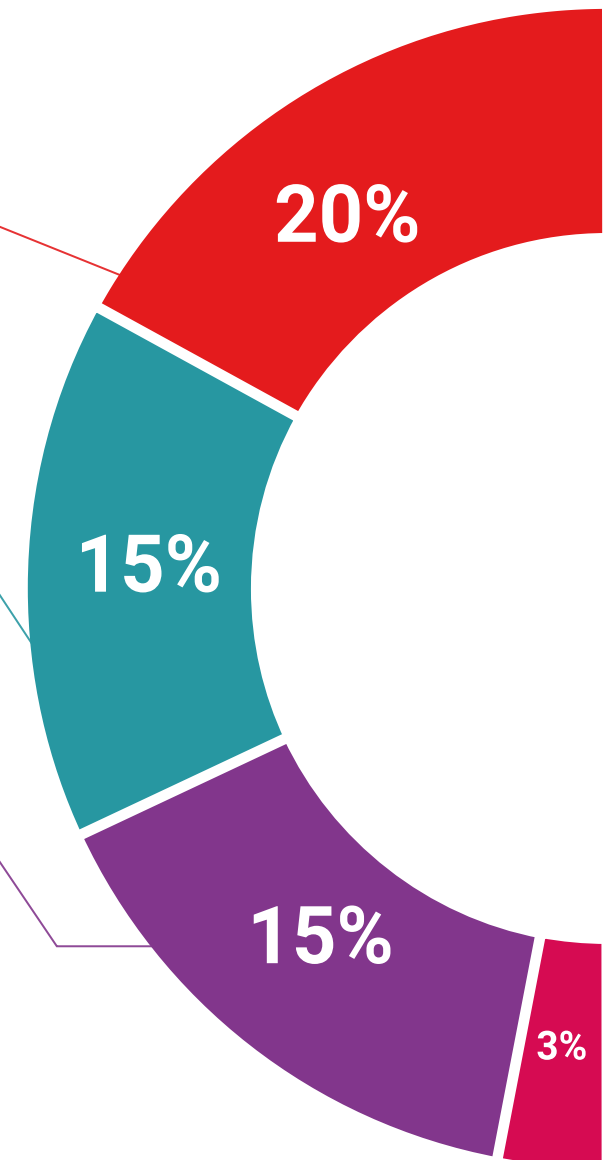
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

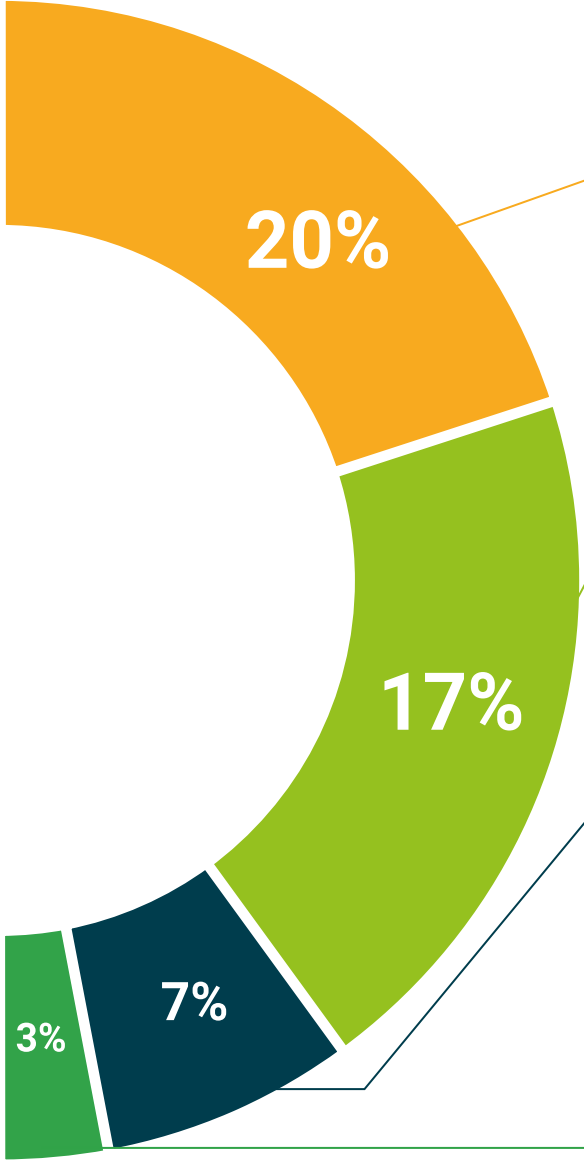


#### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.







**Case Studies**

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an expert strengthens knowledge and memory, and generates confidence for 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.



# 06 Certificate

This Postgraduate Certificate in Life-Threatening Emergencies guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Certificate issued by TECH Global University.



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

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Life-Threatening Emergencies** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Life-Threatening Emergencies**

Modality: **online**

Duration: **12 weeks**

Accreditation: **11 ECTS**



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



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## Life-Threatening Emergencies

