

Master's Degree

Acute Coronary Syndrome





Master's Degree

Acute Coronary Syndrome

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

Website: www.techtitute.com/us/medicine/master-degree/master-acute-coronary-syndrome

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 14

04

Course Management

p. 18

05

Structure and Content

p. 24

06

Methodology

p. 30

07

Certificate

p. 38

01

Introduction

Among cardiovascular diseases, Acute Coronary Syndrome (ACS) is the most frequent cause of mortality in developed countries. Likewise, one of the main consultations in Emergency Departments is chest pain, so specialists must know how to rule out the diagnosis of ACS with total diligence. With this program, students will be able to learn about the latest advances in its management, available diagnostic methods, therapies and preventive measures, as well as a review of the main cardiac rehabilitation programs. A complete, 100% online program that will allow students to combine their professional and academic life and expand their knowledge with the best Cardiology experts and the best theoretical and complementary material of its time.



“

A comprehensive program to learn the latest news about Acute Coronary Syndrome from Cardiology experts and with the support of the best online university in the world"

Although the number of deaths related to Acute Coronary Syndrome (ACS) has been decreasing in recent decades, it is still one of the leading causes of death in the world, especially in developed countries. These figures are concerning for cardiology specialists, not only because of its seriousness, but also due to the fact that their responsibility in the correct diagnosis and treatment of this cardiac disease is fundamental to saving lives.

For this reason, the academic demand in the field of cardiac pathologies, especially in relation to ACS, is increasing. To answer this question, TECH has launched this specialization in Acute Coronary Syndrome, directed and designed by the best cardiology experts. This program will provide you with a holistic approach to the problem, through the experience of specialists who work on this issue on a daily basis. A comprehensive program created based on the latest developments in the field that will provide students with the necessary theoretical and practical information that will be useful in patient management in their own practice.

A 100% online program where students will be able to organize their own academic calendar, as the entire syllabus will be available from the very first day on Virtual classroom. In addition, complementary material will be available in the form of videos made by the teachers, dynamic summaries of each unit, real clinical cases and research articles with which to continue studying, in-depth, each of the proposed topics. Finally, specialists will have the support of the teaching staff and will be able to request individualized tutoring to resolve any questions or doubts that may arise during the academic experience.

This **Master's Degree in Acute Coronary Syndrome** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Cardiology
- ♦ 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
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



With this program you will be able to put into practice the latest diagnostic and therapeutic developments when treating patients with ACS"

“

This Master's Degree will provide you with the most up-to-date criteria in the clinical management of patients with ACS and how to adequately address the differential diagnosis of chest pain in the Emergency Department"

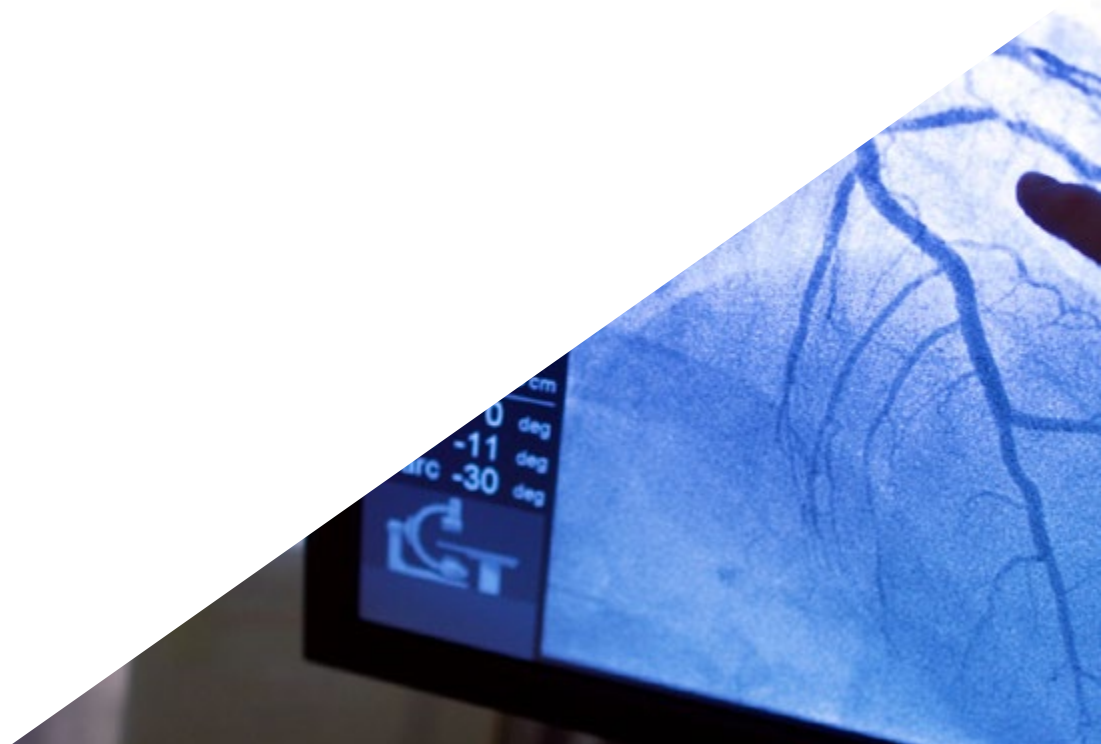
You will delve into the different electrocardiographic manifestations of ST-segment elevation ACS.

The Virtual Classroom is available 24 hours a day so that you can access it whenever you need and from any electronic device.

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

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

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



02 Objectives

TECH's aim with this and all its programs is to provide its students with access to a complete course that is perfectly compatible with their working life. In addition, the objective of this Master's Degree is to update and work in-depth on the most important concepts of one of the major causes of mortality in the world, ACS. Through a comprehensive program based on the latest information, the university provides specialists with all the necessary tools that will guide them to achieve their own goals.





“

Thanks to TECH you will achieve your professional goals sooner than expected"



General Objectives

- ♦ Delve into Acute Coronary Syndrome (ACS) starting with its pathophysiology and its importance as one of the main causes of death in civilized countries
- ♦ Professionalize skills in the assessment and differential diagnosis of chest pain in the emergency department, understanding the value of the different complementary techniques available
- ♦ Adequately classify the patient's initial risk and the most appropriate prehospital treatment and monitor measures in the prehospital phase
- ♦ Internalize reperfusion therapies, their limitations, advantages and protocols, understand the great importance of ischemia time
- ♦ Diagnose and manage the mechanical and arrhythmic complications that can occur in this syndrome
- ♦ Implement appropriate treatment measures during the hospital phase and the value of Coronary Units
- ♦ Develop the value and structure of Cardiac Rehabilitation programs.
- ♦ Understand the treatments that have provided value in secondary prevention of these patients





Specific Objectives

Module 1. Ischaemic heart disease. A Global Issue

- ◆ Internalize the change in the causes of mortality brought about by the development of more advanced societies and the reasons for it
- ◆ Recognize the causes of vascular disease and especially atheromatosis
- ◆ Master atherosclerosis stages and its complications, as well as the myocardium at risk
- ◆ Delve into the risk factors for developing atherosclerosis, both classic and new

Module 2. Clinical Presentation of Coronary Syndromes and Classification

NSTEACS 1. Epidemiology. Pathophysiology and Classification

- ◆ Recognize the various clinical manifestations of coronary artery disease
- ◆ Classify acute coronary syndromes and their reasons
- ◆ Adapt the epidemiology and the different clinical presentations of Non-ST Segment Elevation ACS (NSTEMI)
- ◆ Delve into the different electrocardiographic manifestations of NSTEMI
- ◆ Stratify patients by thrombotic and hemorrhagic risk to individualize their treatment
- ◆ Delve into variant angina and coronary vasospasm as a cause of ACS

Module 3. NSTEACS 2. Imaging and Ischemia Detection Tests

- ♦ Correctly evaluate patients with chest pain in the emergency department and the value of chest pain units
- ♦ Assess the use of transthoracic ultrasound at the bedside in patients with chest pain
- ♦ Master the use of ergometry and stress echo in the assessment of the patient with chest pain
- ♦ Internalize the use of CT in the triple rule-out (coronary artery disease, aortic dissection and coronary artery disease) of chest pain
- ♦ Recognize the usefulness of MRI in patients with chest pain and the value of imaging tests in general in the long-term follow-up of these patients

Module 4. NSTEACS 3. Medical and Revascularization Treatment

- ♦ Delve into the different types of drugs used in the treatment of NSTEACS, which ones to use and for how long, with the exception of lipid-lowering drugs, which are reviewed in the prevention module
- ♦ Advise on the indications for revascularization of the patient with NSTEACS
- ♦ Control the different forms of revascularization possible and their respective advantages and disadvantages
- ♦ Master Percutaneous Revascularization Techniques
- ♦ Master the techniques of Surgical Revascularization

Module 5. NSTEACS 1. Clinical Picture, Presentation and Pre-Hospital and Emergency Assessment

- ♦ Develop knowledge in the different clinical presentations of NSTEACS
- ♦ Assess the patient with NSTEACS in the phase prior to arrival at the hospital
- ♦ Understand the electrocardiographic manifestations of this condition, its possible differential diagnoses and the evolutionary pattern over time
- ♦ Assess general treatment measures and initial monitoring and pharmacological treatment, as well as which treatments should not be used
- ♦ Internalize the importance of the decision of coronary reperfusion and activation of infarction code programs and the importance of timing and delays in this process

Module 6. NSTEACS 2. Patient Management in the Hospital. Coronary Unit

- ♦ Deepen the knowledge of the usefulness of the Coronary Units in the prevention and early treatment of the complications of NSTEACS
- ♦ Recognize the antianginal, lipid-lowering and antithrombotic treatment to be implemented in patients with NSTEACS
- ♦ Understand the most frequent mechanical complication of this entity, CHF, from the mechanistic, treatment and prognostic point of view
- ♦ Identify the rest of the potential mechanical complications (cardiac rupture, VSD and MI) and their incidence, treatment and prognosis

Module 7. NSTEMACS 3. TTE and Other Imaging Tests in Acute Patient Assessment and in the Hospital Phase

- ♦ Monitor the usefulness of imaging techniques in the evaluation of patients with NSTEMACS with suspected mechanical complications
- ♦ Monitor the usefulness of imaging techniques in the prognostic assessment of the patient with long-term NSTEMACS
- ♦ Understand the new echocardiographic parameters that may be useful in the prognostic assessment of the patient
- ♦ Deepen the knowledge of MINOCA, patients with ischemic myocardial damage, but without evidence of obstructive epicardial coronary artery disease

Module 8. NSTEMACS 4. Limitation of Infarct Size. Reperfusion Therapies

- ♦ Recognize the time course of myocardial ischemic necrosis and understand the problem of ischemia time
- ♦ Assess the available strategies for reperfusion, fibrinolysis and primary angioplasty, their advantages and disadvantages
- ♦ Control the necessary material and protocols to perform fibrinolysis or primary angioplasty
- ♦ Know in detail the anticoagulant and antiplatelet therapy in the catheterization laboratory
- ♦ Describe a protocol for antiplatelet treatment in patients who also need to take anticoagulant drugs
- ♦ Internalize hemodynamic support measures during primary angioplasty
- ♦ Control the usefulness of regional reperfusion networks in the treatment of infarction

Module 9. NSTEMACS Arrhythmias

- ♦ Understand the arrhythmia production mechanisms during ischemia
- ♦ Identify the main ventricular arrhythmias to be expected during NSTEMACS and their treatment
- ♦ Recognize the problem of out-of-hospital sudden death and primary ventricular fibrillation
- ♦ Assess which supraventricular arrhythmias are to be expected in this pathology and which antiarrhythmic medication are appropriate during infarction
- ♦ Control the indications for pacemaker implantation and electrical cardioversion
- ♦ Internalize the indications for implantation of implantable defibrillators and resynchronizers and their results

Module 10. ACS Secondary Prevention. Cardiac Rehabilitation Programs

- ♦ Develop optimization in the long-term treatment of ACS
- ♦ Understand the most appropriate eating habits and management of obesity in patients with ACS
- ♦ Deepen in the particularities of diabetic patients with ACS and specific treatment measures in this important group of patients
- ♦ Understand the utility and structure of Cardiac Rehabilitation programs
- ♦ Recognize the opportunities offered by telemedicine in rehabilitation and specifically in its ambulatory phase

03 Skills

Upon completing this Master's Degree, specialists will have the most up-to-date and necessary knowledge that will enable them to diagnose and treat Acute Coronary Syndrome effectively and with a greater chance of success. This is possible thanks to the high-level studies of the most novel aspects of this heart disease, but without forgetting the criteria that, despite not being so common, must be taken into account when dealing with a patient with heart disease. In addition, this program will be a perfect professional complement that will allow students to implement the latest methods and techniques in their day-to-day work.



“

Delve into state-of-the-art infarct downsizing strategies and their advantages, disadvantages and protocols"



General Skills

- ♦ Have a deep knowledge of Acute Coronary Syndrome (ACS) from its pathophysiology to its treatment and prevention
- ♦ In-depth knowledge of the keys to clinical management of patients with ACS, both in the out-of-hospital and in-hospital setting
- ♦ Be able to adequately address the differential diagnosis of chest pain in the Emergency Room
- ♦ Be able to virtually attend revascularization procedures and how to implement cardiac prevention and rehabilitation programs

“

This program will help you improve the skills necessary to increase your chances of success in the diagnosis and treatment of ACS”





Specific Skills

- ♦ Adequately recognize the clinical presentation of acute coronary syndromes, as well as their classification
- ♦ Have the necessary knowledge to perform a differential diagnosis of Ischemia detection in the Emergency Department
- ♦ Manage the most up-to-date information on ischemic heart disease and atherosclerosis
- ♦ Identify when surgical revascularization is indicated and when percutaneous revascularization is indicated in patients with ACS
- ♦ Delve into the causes of sudden death and its prognosis
- ♦ Know the recommendations and contraindications of the main lipid-lowering and antianginal medication
- ♦ Assess transthoracic echocardiography in patients with ACS and recognize the usefulness of imaging techniques in prognostic assessment.
- ♦ Study, in-depth, the different strategies to reduce the size of the infarct
- ♦ Manage the necessary knowledge related to arrhythmia: types, clinical management, treatments, recommended medication
- ♦ Understand the Cardiac Rehabilitation Programs: the most appropriate eating habits and the management of obesity in patients with ACS, as well as the recommended level of physical activity

04

Course Management

To create this Master's Degree, TECH has selected the best medical professionals and cardiology specialists with an extensive academic and professional career in various areas of this field. They are a group of experts who work with heart disease on a daily basis and who have reflected their own experience in this program's topics in order to provide students with practical and real information.



“

The teaching staff have selected real clinical cases from their own experience with which you will be able to put the concepts developed into practice during the program"

Management



Dr. Botas Rodríguez, Javier

- ♦ Head of Cardiology Service, Alcorcón Foundation of the HU
- ♦ Director of the Cardiac Catheterization Laboratory at the Alcorcón Foundation University Hospital
- ♦ Director of the Cardiac Catheterization Laboratory at the Alcorcón Foundation University Hospital
- ♦ Associate Professor of Cardiology of the Degree in Medicine at the Rey Juan Carlos University
- ♦ Doctorate in Medicine (Magna Cum Laude) from the Faculty of Medicine at the Autonomous University of Madrid
- ♦ Residency and specialization in Cardiology at the Gregorio Marañón University Hospital
- ♦ Post Doctorate in Interventional Cardiology from Stanford University

Professors

Dr. Martínez Losas, Pedro

- ♦ FEA of the Cardiology Service, University Hospital Infanta Leonor Madrid
- ♦ Degree in Medicine from the University of Alcalá de Henares. Madrid
- ♦ Specialist in Cardiology at the San Carlos Clinical Hospital in Madrid
- ♦ Sub-specialty in Acute Cardiac Care with a training grant from the SEC in the Acute Cardiovascular Care Unit at La Paz University Hospital Madrid
- ♦ Expert in Atrial Fibrillation from the University of Santiago de Compostela. Galicia

Dr. Hernando Marrupe, Lorenzo

- ♦ Interventional Cardiologist at the Fundación Alcorcón University Hospital
- ♦ FEA in Cardiology at the Prince of Asturias Hospital
- ♦ FEA in Cardiology at the San Carlos Clinical Hospital
- ♦ Author and co-author of numerous scientific publications
- ♦ PhD in Medicine from the Complutense University of Madrid

Dr. De Cortina Camarero, Cristina

- ♦ Cardiology FEA, Hospital Infanta Leonor
- ♦ Assistant Physician at the Cardiology Service, Gregorio Marañón Hospital
- ♦ Assistant Cardiologist at Los Madroños Hospital
- ♦ Assistant Cardiologist at CECAM, San Rafael Hospital
- ♦ Dependent Researcher of the Non-Invasive Cardiology Department of the Cardiology Service, Gregorio Marañón Hospital
- ♦ Assistant Professor at the Complutense University of Madrid
- ♦ PhD in Cardiac Medicine from the Complutense University of Madrid
- ♦ Specialization in Cardiology at the Gregorio Marañón General University Hospital
- ♦ Master's Degree in as Diagnostic Imaging from the San Antonio Catholic University of Murcia
- ♦ Master's Degree in Cardiology from the University of Miguel Hernández de Elche

Dr. Awamleh García, Paula

- ♦ Assistant Physician in the Coronary Unit of the Cardiology Department of the University Hospital of Getafe
- ♦ Doctor Cum Laude in Medicine, Rey Juan Carlos University
- ♦ Master's Degree in Acute Cardiac Care, Menéndez Pelayo University
- ♦ Master's Degree in Cardiology from the Miguel Hernández University of Elche
- ♦ Expert in Electrocardiography, Catholic University San Antonio of Murcia
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Del Castillo Medina, Roberto

- ♦ Cardiologist Expert in Interventional Cardiology
- ♦ Specialist Doctor at Fundación Alcorcón University Hospital
- ♦ Researcher of the Infarction Code Working Group of the Interventional Cardiology Association
- ♦ Interventional Cardiologist at Sur Alcorcón Hospital of Quironsalud Group
- ♦ Physician in the Acute Cardiac Care and Post-Surgical Recovery Unit
- ♦ Interventional Cardiology Specialist at Montepíncipe Hospital
- ♦ Medical Specialist in Cardiology at San Rafael Hospital and Infanta Leonor University Hospital
- ♦ Master's Degree in Diagnostic and Therapeutic Electrophysiology, from the Complutense University of Madrid
- ♦ Member of the Spanish Society of Cardiology

Dr. Juárez Fernández, Miriam

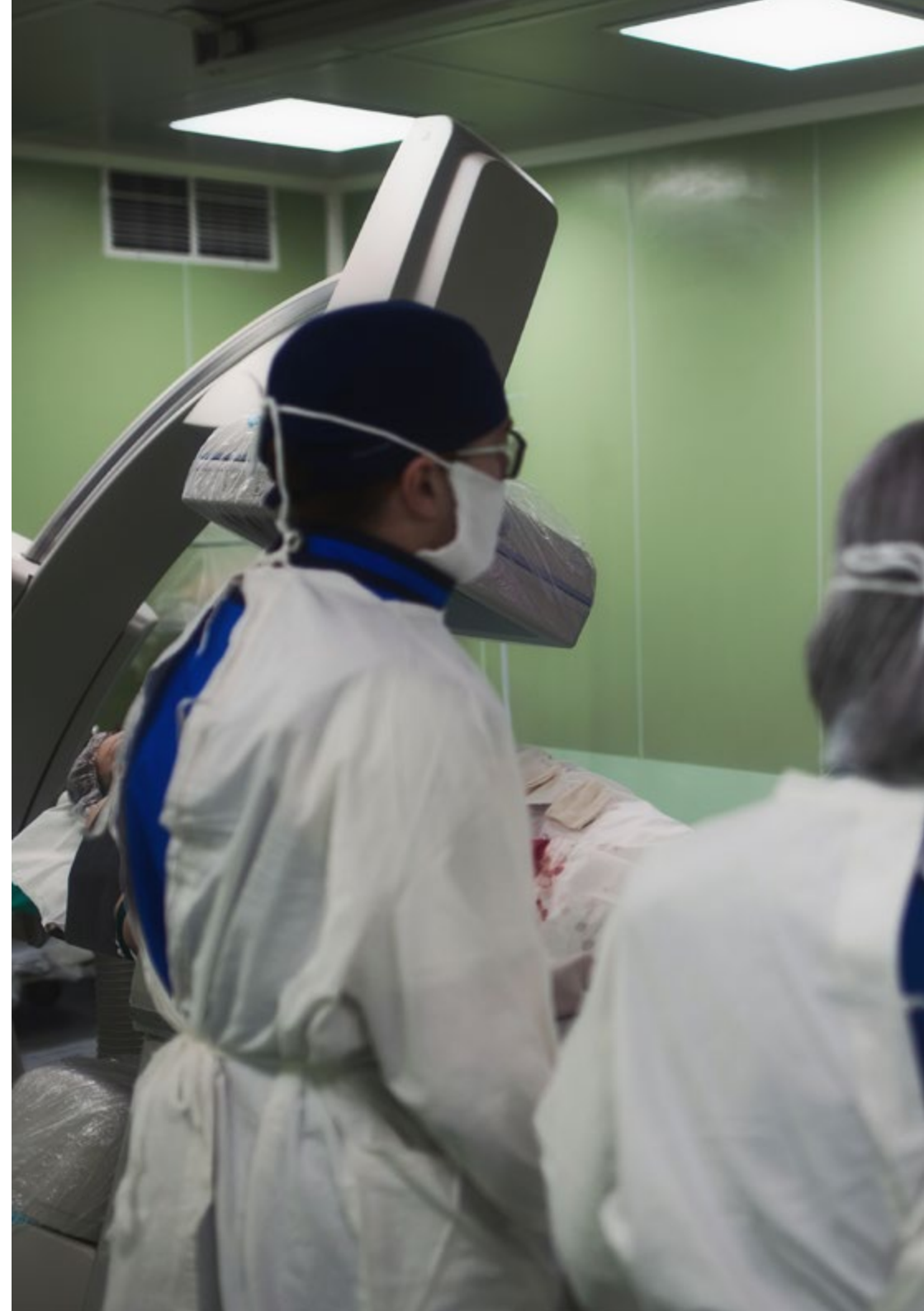
- ♦ Cardiology Specialist
- ♦ Facultative Area Specialist of the Coronary Care Unit, Gregorio Marañón University Hospital Madrid
- ♦ Collaborating Doctor of Practical Teaching, Department of Medicine, Complutense University of Madrid
- ♦ Teacher of the Continuing Education Course "Practical Aspects in the Management of Atrial Fibrillation: Clinical Case Discussion"
- ♦ PhD at the Faculty of Medicine from the Complutense University of Madrid
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Speciality in Cardiology at the Gregorio Marañón General University Hospital. Madrid
- ♦ Member of the Spanish Society of Cardiology

Dr. Campuzano Ruíz, Raquel

- ♦ Coordinator the Cardiac Rehabilitation. and Prevention Unit of the from Alcorcón University Hospital Foundation
- ♦ Cardiologist responsible for Pulmonary Hypertension
- ♦ Cardiologist responsible for Ergospirometry HUFA
- ♦ President Elect of the Cardiovascular Risk and Cardiac Rehabilitation Section of the Spanish Society of Cardiology
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Cardiology from the Spanish Society of Cardiology, Miguel Hernández University. Elche
- ♦ Doctor in the Official Postgraduate Program in Health Sciences at the Complutense University of Madrid, Alcalá University, Madrid
- ♦ Member of: SEC Scientific Committee, SEC Teaching Commission, Spanish Society of Cardiology, European Society of Cardiology

Dr. Vaqueriza Cubillo, David

- ♦ FEA of Clinical Cardiology and Multidisciplinary Unit of Heart Failure, Hospital Infanta Leonor Madrid
- ♦ Specialist of the Cardiology Unit, Beata María Ana de Jesús Hospital Madrid
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ Resident in Cardiology at 12 de Octubre University Hospital. Madrid
- ♦ Online Master's Degree in Cardiology "Professor in Cardiology" by the Miguel Hernández University. Valence





Dr. Juárez Fernández, Miriam

- ◆ Cardiology Specialist
- ◆ Facultative Area Specialist of the Coronary Care Unit, Gregorio Marañón University Hospital Madrid
- ◆ Collaborating Doctor of Practical Teaching, Department of Medicine, Complutense University of Madrid
- ◆ Teacher of the Continuing Education Course "Practical Aspects in the Management of Atrial Fibrillation: Clinical Case Discussion"
- ◆ PhD at the Faculty of Medicine from the Complutense University of Madrid
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Specialty in Cardiology at the Gregorio Marañón General University Hospital. Madrid
- ◆ Member of the Spanish Society of Cardiology

Dr. González Mansilla, Ana

- ◆ Attending Physician. in Cardiology at the Gregorio Marañón General University Hospital
- ◆ Medical Specialist, 12 de Octubre University Hospital
- ◆ PhD in Medicine and Surgery from the Complutense University of Madrid
- ◆ Member of: Cardiovascular Research Network of Gregorio Marañón Biomedical Research Foundation, Cardiovascular Research Network of the Carlos III Health Institute

05

Structure and Content

For the preparation of the content of this program, we have mainly taken the teaching staff's criteria into account, making them responsible for designing its structure based on the educational and quality standards established by TECH. In addition, they have taken the latest developments of evidence-based medicine and their own work experience as a reference. This comprehensive program will be accompanied by additional high-quality material that will provide the course with a more dynamic approach and will allow specialists to delve deeper into those topics in which they is most interested.



“

A comprehensive academic plan on the cutting edge of medicine, perfect for continuing on the path to success"

Module 1. Ischemic heart disease. A Global Issue

- 1.1. Ischemic Heart Disease. Normal Coronary Blood Flow and Coronary Artery Blockage
- 1.2. Cardiovascular Disease: The Leading Cause of Mortality in the Developed World. Epidemiological Transition
- 1.3. CV Disease as a Cause of Mortality in Spain and Latin American Countries
- 1.4. Atherosclerosis: Phases
- 1.5. ACS Pathophysiology At-Risk Myocardium Anatomic Pathology Findings in ACS
- 1.6. Non-Atherosclerotic Causes of ACS
- 1.7. Classic Risk Factors for Atherosclerosis: Hypercholesterolemia and Smoking
- 1.8. Classic Risk Factors for Atherosclerosis: Age and Sex, Diabetes and Arterial Hypertension
- 1.9. New Atherosclerosis Risk Factors

Module 2. Clinical Presentation of Coronary Syndromes and Classification NSTEMACS 1. Epidemiology. Pathophysiology and Classification

- 2.1. Forms of Presentation of Coronary Artery Disease: Chronic and Acute Coronary Syndromes
- 2.2. Operational Classification of ACS Based on ECG, Non-ST Segment Elevation ACS Epidemiology
- 2.3. Pathophysiology and Correlation with Anatomic Pathology
- 2.4. Unstable Angina and Non-Q AMI, Clinical Features
- 2.5. ECG and Non-ST Segment Elevation ACS
- 2.6. Complementary Diagnostic Laboratory Tests and RXT in Non-ST Segment Elevation ACS
- 2.7. Risk Stratification, Thrombotic Risk Scales
- 2.8. Risk Stratification, Hemorrhagic Risk Scales
- 2.9. Variant Angina and Coronary Vasospasm Clinical Features
- 2.10. Vospasm Provocation Tests Treatment and Prognosis of Vasospasm

Module 3. NSTEMACS 2. Imaging and Ischemia Detection Tests

- 3.1. Differential Diagnosis of TD in the Emergency Department
- 3.2. Imaging Protocols in Emergency Department TD Units Assessment and Algorithm for the Diagnosis of Patients with TD in the Emergency Department
- 3.3. Value of Transthoracic Echocardiography in the Assessment of the Patient with Suspected NSTEMACS Use of POCUS
- 3.4. Ergometry and Effort Echo/Stress Echo in the Patient with TD in the Emergency Department. Indications and Technique
- 3.5. Isotopic Perfusion Tests. Indications and Technique
- 3.6. Coronary CT in the ED patient with TD. Indications and Technique
- 3.7. Role of MRI in NSTEMACS and Patients with Chest Pain. Indications and Technique
- 3.8. Anatomical Approach vs. Functional in the Diagnostic Assessment of the Patient with Chest Pain
- 3.9. Long-Term Follow-Up Using Imaging Techniques

Module 4. NSTEMACS 3. Medical and Revascularization Treatment

- 4.1. General and Monitoring Measures
- 4.2. Anti-Anginal Drugs: Beta Blockers
- 4.3. Anti-Anginal Drugs: Nitrates and Calcium Antagonists
- 4.4. Planetary Antiaggregants. Which Ones and For How Long?
- 4.5. Anticoagulant Drugs Which Ones, How Much and Why?
- 4.6. Indications for Coronary Angiography and Revascularization
- 4.7. When Is Surgical Revascularization Indicated and When Is Percutaneous Revascularization Indicated?
- 4.8. Percutaneous Revascularization Techniques
- 4.9. Surgical Revascularization Techniques

Module 5. NSTEMACS 1. Clinical Picture, Presentation and Pre-Hospital and Emergency Assessment

- 5.1. Clinical Presentations of NSTEMACS
- 5.2. Out-of-Hospital Sudden Death. Causes and Prognosis
- 5.3. Assessment of the Patient with NSTEMACS in the Pre-Hospital Phase and in the Emergency Department (Clinical and Physical Examination) Initial Risk Stratification
- 5.4. ECG in the Acute Phase of NSTEMACS and Correlation with Coronary Anatomy
- 5.5. ECG with ST Elevation. Differential Diagnosis
- 5.6. Evolving ECG Pattern in NSTEMACS
- 5.7. General Treatment Measures and Initial Monitoring, Why Is It Important?
- 5.8. Initial Pharmacological Treatment of NSTEMACS: Oxygen Therapy, Nitrates, Beta-Blockers
- 5.9. Pre-Hospital Antithrombotic Therapy: When and with What?
- 5.10. Indications for Coronary Reperfusion: The Problem of Timing

Module 6. NSTEMACS 2. Patient Management in the Hospital. Coronary Unit

- 6.1. Role of the Coronary Care Unit, the Value of Monitoring and General Early Treatment Measures General Measures
- 6.2. Patient Stratification and Risk Scales
- 6.3. Complementary Laboratory Tests
- 6.4. Lipid-Lowering Drugs and Treatment Goals
- 6.5. Antianginal Drugs in NSTEMACS
- 6.6. Platelet Antiplatelet Aggregation in NSTEMACS
- 6.7. Anticoagulation Indications. Anticoagulants
- 6.8. Complications of NSTEMACS: Chronic Heart Failure (CHF)
- 6.9. Complications of NSTEMACS: Cardiogenic Shock, Medical Treatment and Mechanical Support
- 6.10. Mechanical Complications of NSTEMACS: Cardiac Rupture, VSD and MI

Module 7. NSTEMACS 3. TTE and Other Imaging Tests in Acute Patient Assessment and in the Hospital Phase

- 7.1. CXR in NSTEMACS
- 7.2. Value of Transthoracic Echocardiography in the Patient with NSTEMACS
- 7.3. Transthoracic Echocardiographic Assessment of Mechanical Complications of NSTEMACS
- 7.4. Echocardiographic Assessment of the Patient with Heart Failure or Cardiogenic Shock
- 7.5. Usefulness of Imaging Techniques in the Prognostic Assessment of the Patient with NSTEMACS. Diagnostic Assessment of Residual Ischemia and Myocardial Viability
- 7.6. New Techniques for Myocardial Deformation in NSTEMACS
- 7.7. MINOCA Causes and Prognosis
- 7.8. Usefulness of MRI in Patients With Myocardial Damage Without Epicardial Coronary Disease
- 7.9. Assessment of Myocardial Perfusion by Contrast Echocardiography. Correlation with Angiographic Findings

Module 8. NSTEMACS 4. Limitation of Infarct Size. Reperfusion Therapies

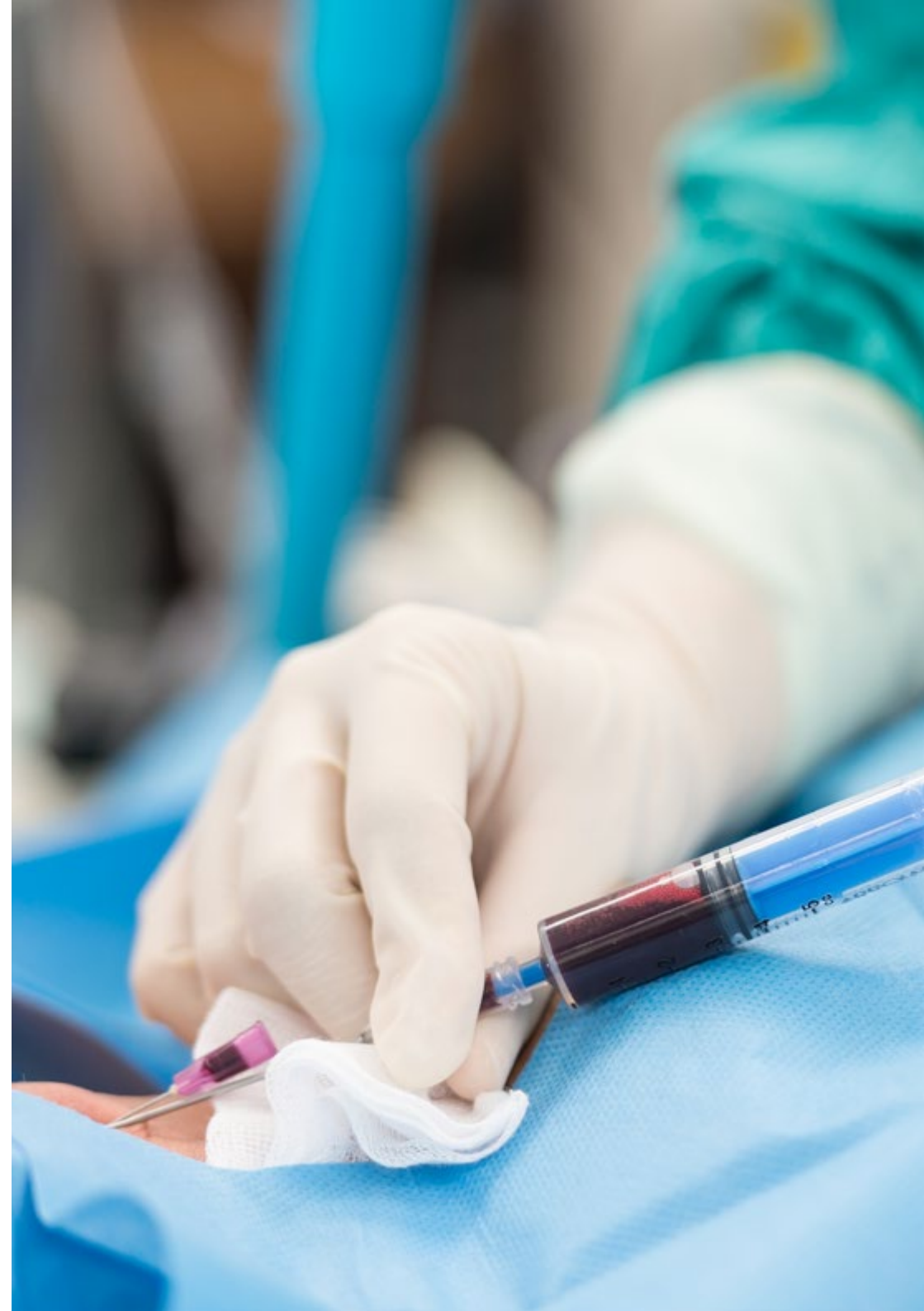
- 8.1. Myocardial Necrosis and Ischemia, the Problem of Ischemia Time
- 8.2. Strategies to Decrease Infarct Size: Fibrinolysis vs Primary Angioplasty
- 8.3. Fibrinolysis, Advantages, Disadvantages and Protocols
- 8.4. Primary Angioplasty Technique and Requirements
- 8.5. Stents: Types and Results. Thrombus Extractors?
- 8.6. Antiplatelet and Anticoagulation Treatment During PCI
- 8.7. Long-Term Anti-Aggregation Treatment
- 8.8. The Problem of Antiplatelet Treatment in Patients Who Also Take Anticoagulant Drugs Protocols
- 8.9. Hemodynamic Support During Primary Angioplasty. Available Methods and Results
- 8.10. Infarction Code Programs and Regional Reperfusion Networks

Module 9. NSTEMI Arrhythmias

- 9.1. Ischemia as a Cause of Arrhythmias: Mechanisms
- 9.2. NSTEMI Arrhythmias: EV, RIVA and TVNS (Meaning and Clinical Management)
- 9.3. Polymorphic and Monomorphic VT: Meaning and Treatment
- 9.4. VF and Out-of-Hospital Sudden Death in STEACS
- 9.5. Supraventricular Arrhythmias in NSTEMI
- 9.6. Antiarrhythmic Medication Used in STEACS
- 9.7. Cardioversion and Electrical Defibrillation: Protocols
- 9.8. Bradyarrhythmias and Blockages in STEACS Pacemaker Implantation Indications
- 9.9. Automatic Implantable Defibrillator: Indications, Results and Techniques
- 9.10. Cardiac Resynchronization, Indications and Outcomes

Module 10. ACS Secondary Prevention. Cardiac Rehabilitation Programs

- 10.1. Optimization of Medical Treatment after ACS
- 10.2. Diet and Obesity Management
- 10.3. Prescription and Types of Exercise
- 10.4. Control of Arterial Hypertension before and after ACS
- 10.5. Dyslipidemia Control Before and After ACS
- 10.6. Smoking Control
- 10.7. Diagnosis and Management of Diabetes in Ischemic Heart Disease
- 10.8. Cardiac Rehabilitation Programs: Evidence, Phases, Components and Process of Care
- 10.9. Cardiac Rehabilitation Telemedicine
- 10.10. Continuity of Care after ACS and Cardiac Rehabilitation PHASE III Cardiac Rehabilitation





“

You are just one step away from investing in the best option for your professional future. Become an expert in Acute Coronary Syndrome and don't miss out”

06 Methodology

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

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



“

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

At TECH we use the Case Method

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

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



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

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

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



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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

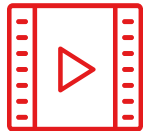
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

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



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



Study Material

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

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

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



Interactive Summaries

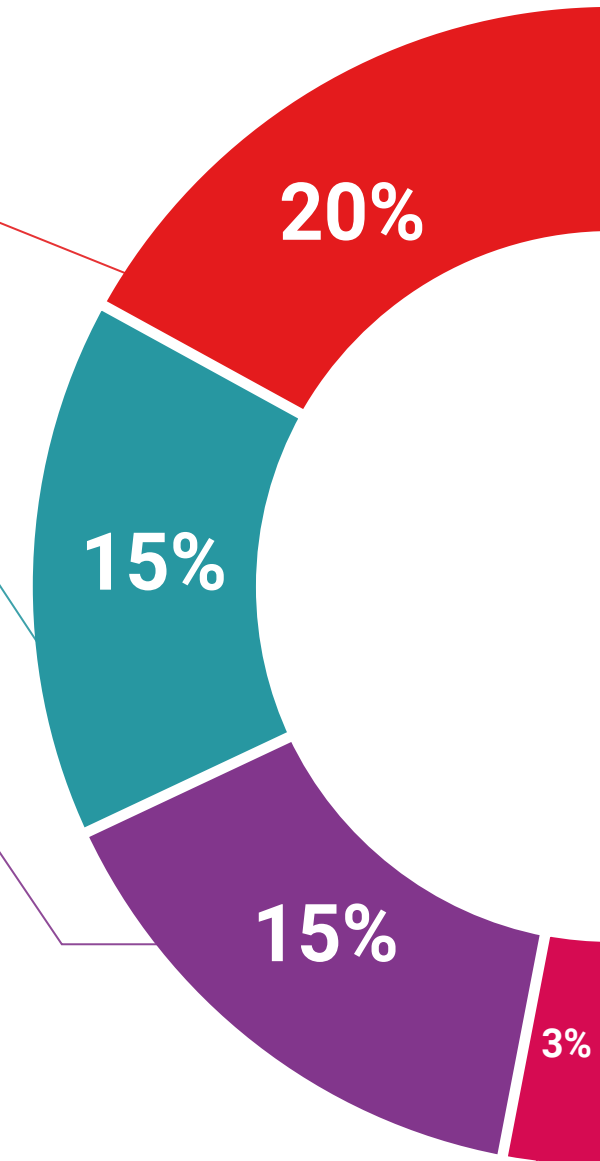
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

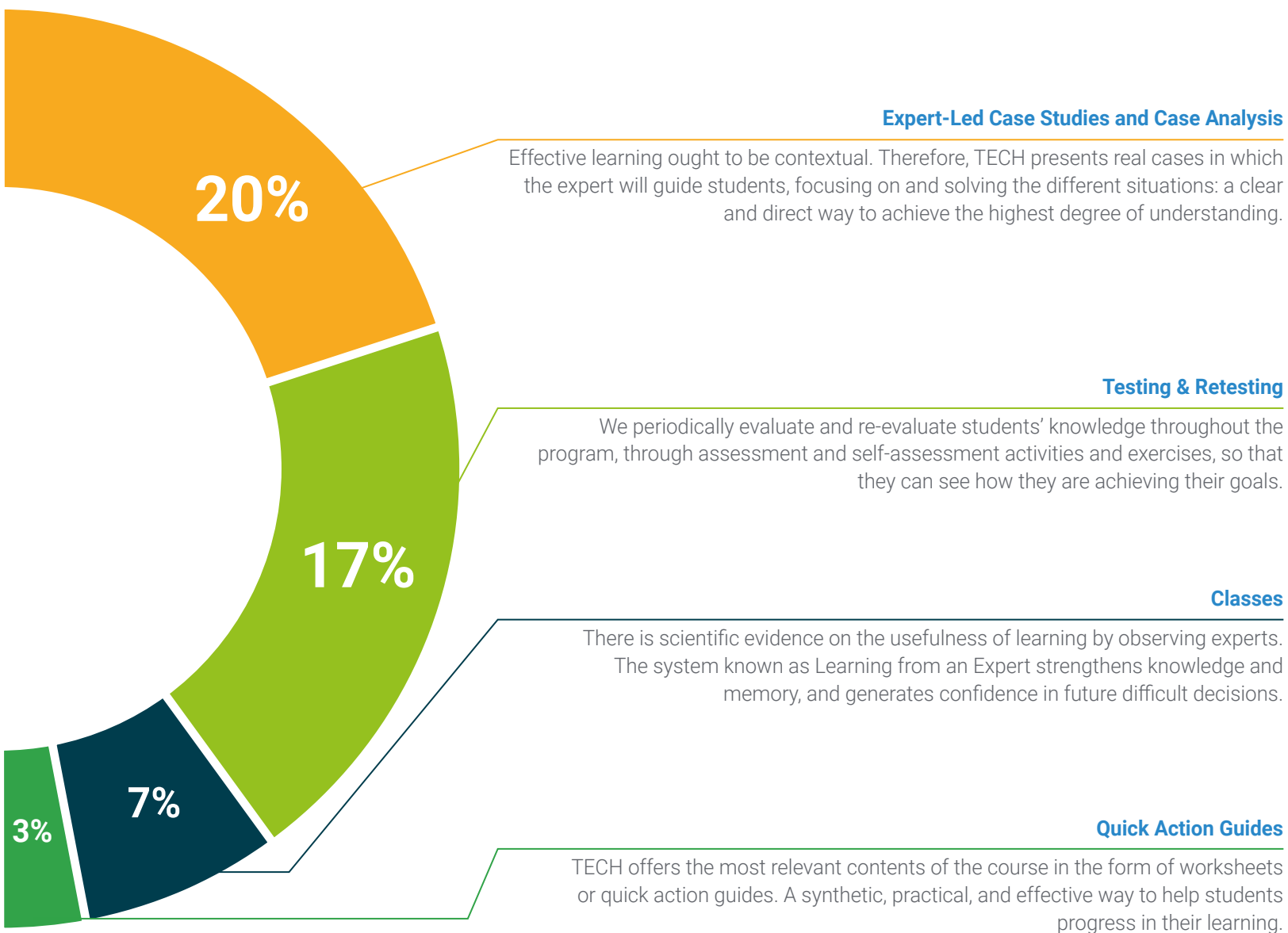
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





07 Certificate

This Master's Degree in Acute Coronary Syndrome guarantees students, in addition to the most rigorous and up-to-date education, access to a Master's Degree 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 **Master's Degree diploma in Coronary Acute Syndrome** 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.

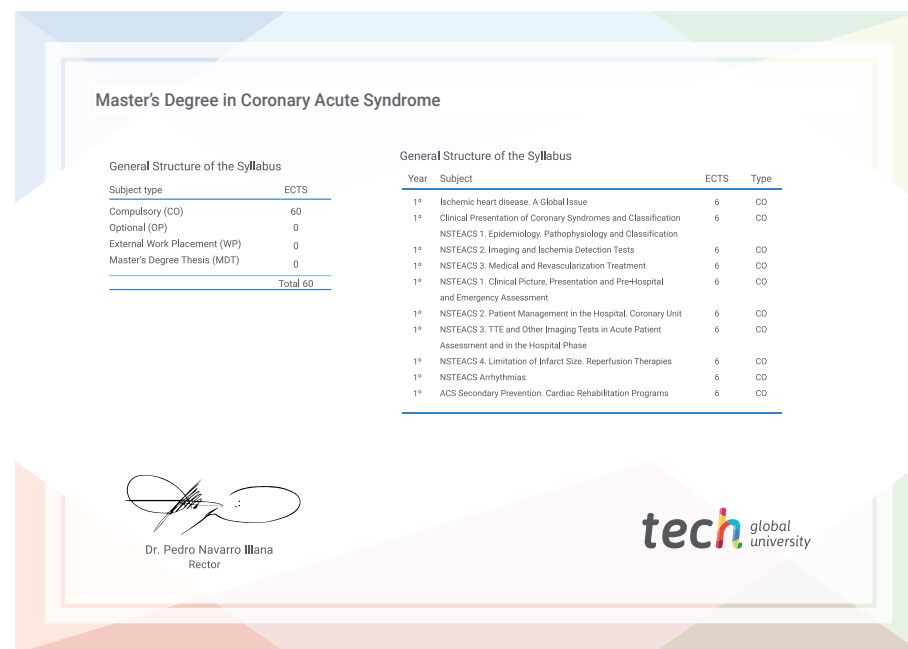
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Coronary Acute Syndrome**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**





Master's Degree Acute Coronary Syndrome

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

Master's Degree

Acute Coronary Syndrome