

Postgraduate Diploma

Arrhythmias in Different Clinical Contexts



Postgraduate Diploma Arrhythmias in Different Clinical Contexts

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-arrhythmias-different-clinical-contexts

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 18

05

Methodology

p. 22

06

Certificate

p. 30

01

Introduction

Arrhythmias are not only derived from a series of risk factors, but are often inherited from generation to generation. For this reason, knowledge of the different clinical contexts in which it develops has become indispensable for specialists, as it allows them to have a broader and more solid vision of this heart disease. With this TECH program, in collaboration with a teaching team specialized in cardiology, TECH offers graduates the opportunity to be up to date in the field, providing them with the necessary tools and with an online format, practical and adapted to each student.





“

A program on arrhythmias, innovative, practical and with a clear vocation to focus on the clinical management of the problems”

This TECH Postgraduate Diploma aims to enable Cardiology specialists to find the necessary information that will allow them to be at the forefront of arrhythmias and the different clinical contexts in which this heart disease can develop. This program stands out, not only for the quality of its content, but also because it has a practical component that allows the student to get involved and work with real diagnoses.

The graduate will not only delve into the important relationship between rhythm disorders and heart failure, but will also delve into arrhythmic syndromes, sudden death, channelopathies and cardiomyopathies. This will give students a complete and clearer vision of the different contexts and their clinical management.

Led by a team of experts in Electrophysiology and Heart Failure, and with a teaching staff specialized in the different branches of cardiology, this Postgraduate Diploma offers a comprehensive approach in which the management of both general and specific, but above all frequent, clinical scenarios is emphasized.

This is a unique academic opportunity to become an expert in the sector, in which the student can learn from the best specialists and without giving up their working life. That is why TECH offers a completely online program, flexible and without timetables. In addition, graduates have access to the entire syllabus in the virtual classroom from the beginning of the program, allowing them to study at their own pace and from anywhere.

This **Postgraduate Diploma in Arrhythmias in Different Clinical Contexts** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ 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



All the content is available from the beginning of the program, because you set the pace. In addition, you can also download it and study it from wherever you want"

“

A program that will keep you abreast of the latest information on sudden death, continuing advances in pathophysiology, arrhythmic management and knowledge of the involvement of genetics in its occurrence”

The program's teaching staff includes professionals from the sector who contribute their work 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 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 academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

A good way to keep up to date with the latest developments in the specialty without having to give up your working life.

Learn more about the important relationship between Rhythm Disorders and Heart Failure.



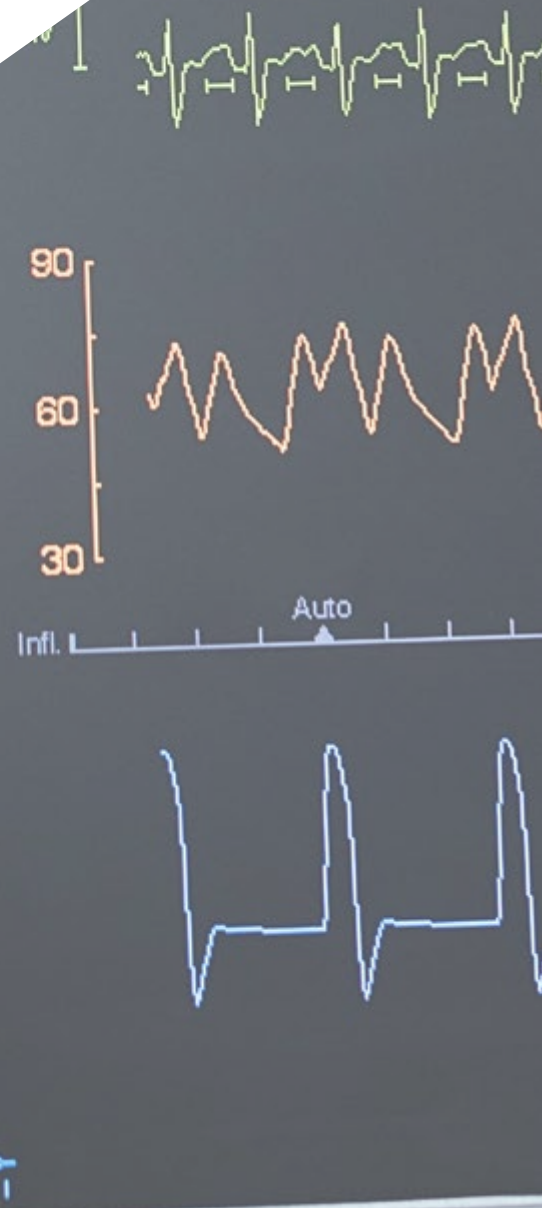
02 Objectives

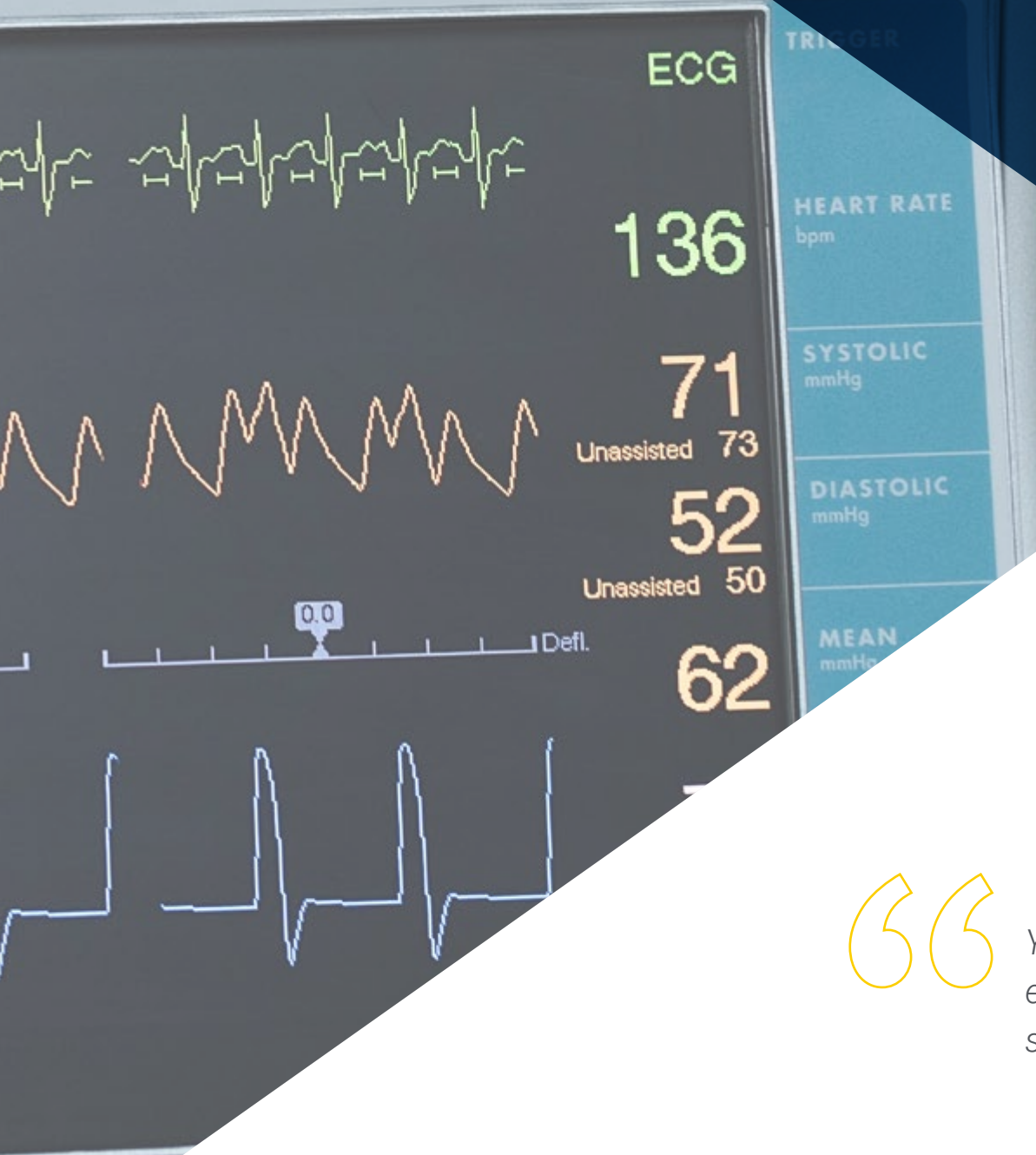
Medicine is a profession that forces its specialists to constantly update their concepts, techniques, strategies and treatments. For this reason, the main objective of this TECH educational program is to ensure that the students expand their knowledge and keep abreast of new developments in the field of heart rate disorders. All this with the best and most modern educational tools, and with educational technology at the forefront of the sector, designed to facilitate learning.

LEAD
GAIN
PRESSURE
SOURCE
IAB FILL MODE
SLOW GAS
ALARM
OPERATION
MODE
IAB STATUS

External
Normal
Direct
Auto
On
Auto

IAB STATUS





“

You will have at your disposal not only an excellent teaching team, but also a complete syllabus and the best additional resources”



General Objectives

- Update general knowledge as well as the most innovative aspects of cardiological processes involving cardiac rhythm disorders
- Delve into the clinical management and indications of the different procedures performed for the diagnosis and treatment of these cardiac conditions
- Delve into the diagnosis and treatment of arrhythmias based on clinical and electrocardiographic aspects, as well as invasive techniques and electrophysiological studies
- Broaden knowledge in the operation, monitoring and implantation technique of the main implantable devices used for the treatment of arrhythmias
- Delve into the problems in cardiac rhythm disorder that can arise across the spectrum of patients
- Achieve a mastery of the rhythm disorder problems present in the various scenarios faced by the cardiologist in his or her routine clinical practice



If your goal is to be at the forefront of medical advances in arrhythmias, this program will help you achieve it"





Specific Objectives

Module 1. Arrhythmias and Heart Failure

- ♦ Review the importance of rhythm disorders in heart failure
- ♦ Know in depth the importance of the AF-Heart Failure relationship, from its epidemiology to its prognostic implication
- ♦ Review the role of antiarrhythmic drugs, especially ablation, in the management of AF in patients with heart failure
- ♦ Update on the assessment of ventricular arrhythmias in heart failure, delving into the role of genetics and MRI
- ♦ Review the current indications for CRS therapy and other devices in HF
- ♦ Learn about the novel aspects of physiological stimulation therapies
- ♦ Review the concept of Tachycardiomyopathy with a broad approach, including its epidemiology, diagnosis and treatment, both pharmacological and electrophysiological

Module 2. Arrhythmic Syndromes, Sudden Cardiac Death and Channelopathies

- ♦ In-depth knowledge of sudden cardiac death: concept, epidemiology, causes, diagnostic study and clinical management
- ♦ Review the concept of channelopathies and their epidemiology
- ♦ Review the fundamental aspects of the most frequent channelopathies: Brugada Syndrome and Long QT Syndrome
- ♦ Learn the role of genetics in these entities. Review the indications of the family study and how to carry them out

Module 3. Cardiomyopathies and Arrhythmias

- ♦ Review the general aspects of arrhythmias associated with cardiomyopathies
- ♦ Review the characteristics of the most frequent arrhythmias in dilated cardiomyopathy and arrhythmogenic dysplasia
- ♦ Delve into the prevention and management of ventricular arrhythmias, reviewing the indications for ICDs in these pathologies
- ♦ Learn about the role of genetics in this context
- ♦ Review the rhythm disorders associated with other less frequent cardiomyopathies

Module 4. Arrhythmias in Other Clinical Contexts

- ♦ Review the most common arrhythmias in patients without heart disease and in athletes
- ♦ Review the most common arrhythmias in the critically ill cardiac patient. Know their epidemiology, diagnosis and management
- ♦ Know in detail the therapeutic algorithm of arrhythmic storm
- ♦ Review the indications and technique of transient pacemaker implantation
- ♦ Review the most frequent arrhythmias in the non-cardiac critically ill patient, after cardiac surgery and after TAVI, with special attention to their management
- ♦ Review, in general, the most prevalent arrhythmias in patients with congenital heart disease, as well as their fundamental implications and particularities of management

03

Course Management

A team of experts from different areas of cardiology has been selected to direct this program. The experience of these specialists, with extensive professional experience in leading hospitals in the area, will provide the graduate with a current and, above all, realistic view of the subject. On the other hand, having a teaching staff such as the one offered by this program will also provide you with a complete perspective based on the day-to-day practice of medicine.



“

With this program you will have the support of a group of cardiology specialists who will not only be available to answer your questions, but will also advise and guide you on your way to becoming an expert in the field”

Management



Dr. Jiménez Sánchez, Diego

- Assistant specialist in Cardiology at the University Hospital El Escorial
- Attending Doctor Specialist at Unit of the Puerta De Hierro University Hospital
- Degree in Medicine and Surgery from the Autonomous University of Madrid
- Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- Fellowship in electrophysiology at the Arrhythmia Unit of the Puerta de Hierro University Hospital
- University Master in Diagnostic and Therapeutic Cardiac Electrophysiology at San Pablo CEU University



Dr. Vázquez López-Ibor, Jorge

- Assistant Cardiology Specialist at University Hospital El Escorial
- Assistant Cardiology Specialist at the Heart Failure Unit of the Puerta de Hierro Hospital
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- Theoretical and practical Master in Critical and Advanced Heart Failure (MICCA) at the Gregorio Marañón Hospital
- Theoretical and practical training in Cardiovascular Research at the National Center for Cardiovascular Research (CNIC)
- Fellowship in Advanced Heart Failure, Heart Transplantation and Pulmonary Hypertension at the Puerta de Hierro University Hospital

**Dr. Castro Urda, Víctor**

- ♦ Assistant Specialist in the Arrhythmia Unit of the Cardiology Service of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Internship at the Electrophysiology and Cardiology Department of the Hospital UZ Brussel, Belgium
- ♦ Master in Diagnostic and Therapeutic Cardiac Electrophysiology at the Complutense University of Madrid

Professors**Dr. Domínguez Rodríguez, Fernando**

- ♦ Assistant Cardiology Specialist at the Heart Failure Unit of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Fellowship in Familial Heart Disease at the Familial Heart Disease Unit of the University Hospital Puerta de Hierro
- ♦ Doctor of Medicine, Cum Laude, Autonomous University of Madrid

Dr. García Magallón, Belén

- ♦ Fellow of the Heart Failure Unit in the Cardiology Service of the University Hospital Puerta de Hierro
- ♦ Residency in the specialty of Cardiology at the University Hospital of Guadalajara
- ♦ Graduated in Medicine at the Catholic University of Valencia San Vicente Mártir
- ♦ Master's Degree in Diagnostic Imaging in Cardiology at the Catholic University of Murcia

Dr. Toquero Ramos, Jorge

- ♦ Assistant Specialist in the Arrhythmia Unit of the Cardiology Service of the Puerta de Hierro Hospital
- ♦ Graduate in Medicine and Surgery from the University of Valladolid
- ♦ Doctor cum laude in Medicine from the Autonomous University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Fellowship in Clinical Electrophysiology at the Arrhythmia Unit of the Center
- ♦ Cardiovascular at OLV Aalst Hospital, Belgium
- ♦ Master in Diagnostic and Therapeutic Cardiac Electrophysiology at the Gregorio Marañón Hospital and Complutense University of Madrid

Dr. Cobo Marcos, Marta

- ♦ Assistant Cardiology Specialist at the Heart Failure Unit of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Promoter and coordinator of the working group on Cardiorenal Syndrome and Treatment of Congestion in Heart Failure of the Heart Failure Association of the Spanish Society of Cardiology





Dr. Vilches Soria, Silvia

- ♦ Associate Specialist at the Family Cardiopathies Unit of the Gregorio Marañón University Hospital
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Fellowship in Familial Heart Disease at the Familial Heart Disease Unit of the University Hospital Puerta de Hierro
- ♦ PhD Candidate in Medicine and Surgery at the Autonomous University of Madrid

Dr. Parra Esteban, Carolina

- ♦ Assistant Cardiology Specialist at the Coronary Care Unit of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Lecturer in the course Simulation in the Integral Management of the Patient in Cardiogenic Shock organized by the Cardiology Service of the University Hospital
- ♦ Puerta de Hierro and the Foundation for Biomedical Research of the Puerta de Hierro University Hospital

04

Structure and Content

The syllabus of this Postgraduate Diploma has been carefully selected and adapted to the relearning methodology, in which TECH is pioneer. In addition, it has been designed based on the recommendations and guidelines of the teaching team and with the most up-to-date information on cardiac arrhythmias in different clinical contexts. From the first moment, the student will be able to expand his knowledge with theoretical and practical content, making use, in addition, of the high-quality multimedia material that he will find in the virtual classroom.



“

You will have at your fingertips a variety of supplementary materials that will allow you to extend each topic and broaden your knowledge”

Module 1. Arrhythmias and Heart Failure

- 1.1. Importance of Rhythm Disorders in Heart Failure
- 1.2. AF and Heart Failure
 - 1.2.1. Epidemiology of AF in Heart Failure
 - 1.2.2. Prognostic Implication of the Presence of AF in Patients with Heart Failure
- 1.3. AF and Heart Failure. Role of Ablation and Antiarrhythmic Drugs
- 1.4. Risk Assessment of Ventricular Arrhythmias in HF
 - 1.4.1. Role of MRI
 - 1.4.2. Role of Genetics
- 1.5. Management of Ventricular Arrhythmias in Heart Failure
- 1.6. Indications for CRS Therapy and Other Devices in the Context of Heart Failure
 - 1.6.1. Conventional Resynchronizer
 - 1.6.2. Physiological Stimulation (Hisian and Left Bundle Branch)
- 1.7. Tachycardiomyopathy
 - 1.7.1. Concept and Epidemiology
 - 1.7.2. Diagnostic Study
- 1.8. Management of Patients with Tachycardiomyopathy
 - 1.8.1. Medical Treatment
 - 1.8.2. Indications and Ablation Approach
- 1.9. PM-Mediated Ventricular Dysfunction. Prevalence and Management
- 1.10. LBBB and Ventricular Dysfunction. Does Dyssynchronopathy Exist?

Module 2. Arrhythmic Syndromes, Sudden Cardiac Death and Channelopathies

- 2.1. Sudden Cardiac Death
 - 2.1.1. Concept and Epidemiology of Sudden Cardiac Death
 - 2.1.2. Causes of Sudden Cardiac Death
- 2.2. Sudden Cardiac Death
 - 2.2.1. Diagnostic Study after a Recovered Cardiac Arrest
 - 2.2.2. Clinical Management. Prevention
- 2.3. Concept of Canalopathy. Epidemiology
- 2.4. Brugada Syndrome
 - 2.4.1. Indications for Electrophysiological Study
 - 2.4.2. Indications for ICD
 - 2.4.3. Medical Treatment

- 2.5. Long QT Syndrome
 - 2.5.1. Indications for ICD
 - 2.5.2. Medical Treatment
- 2.6. Short QT Syndrome
 - 2.6.1. Indications for ICD
 - 2.6.2. Medical Treatment
- 2.7. Early Repolarization and PTVc
 - 2.7.1. Indications for ICD
 - 2.7.2. Medical Treatment
- 2.8. The Importance of Genetics
 - 2.8.1. Family Studies

Module 3. Cardiomyopathies and Arrhythmias

- 3.1. Association of Mycardiopathies and Arrhythmias
- 3.2. Dilated Cardiomyopathy
 - 3.2.1. Atrial Arrhythmias
 - 3.2.2. Ventricular Arrhythmias
- 3.3. Prevention of Arrhythmias and Sudden Cardiac Death in Dilated Cardiomyopathy
 - 3.3.1. Indications for ICD
 - 3.3.2. Role of Genetics
- 3.4. Hypertrophic Cardiomyopathy Indications for ICD
 - 3.4.1. Atrial Arrhythmias
 - 3.4.2. Ventricular Arrhythmias
- 3.5. Prevention of Arrhythmias and Sudden Cardiac Death in Hypertrophic Cardiomyopathy
 - 3.5.1. Indications for ICD
- 3.6. Arrhythmogenic Cardiomyopathy
 - 3.6.1. Description
 - 3.6.2. Most Frequent Arrhythmias and Peculiarities in their Management
 - 3.6.3. Prevention of Sudden Death. Indications for ICD
- 3.7. Amyloidosis
 - 3.7.1. Description
 - 3.7.2. Most Frequent Arrhythmic Disorders and Peculiarities in their Management
 - 3.7.3. Indications for MP



- 3.8. Other Cardiomyopathies and their Association with Cardiac Rhythm Disorders
 - 3.8.1. Dystrophies and Neuromuscular Diseases. Indications for ICD and PM
- 3.9. Study of AVB in Young Patients
 - 3.9.1. Diagnostic and Therapeutic Algorithm

Module 4. Arrhythmias in Other Clinical Contexts

- 4.1. Arrhythmias in the Population without Heart Disease
- 4.2. Arrhythmias in Athletes
- 4.3. Arrhythmias in the Critically Ill Cardiac Patient
 - 4.3.1. Epidemiology
 - 4.3.2. Study and Clinical Management
 - 4.3.3. Management of Arrhythmic Storm
 - 4.3.4. Transient Pacemaker Indications and Implantation Technique
- 4.4. Out-of-Hospital Cardiac Arrest Care
- 4.5. Arrhythmias in the Non-Cardiac Critically Ill Patient
- 4.6. Arrhythmias in Patients Undergoing Cardiac Surgery and after TAVI
- 4.7. Arrhythmias in Infantile Congenital Cardiopathies
- 4.8. Arrhythmias in Adult Congenital Heart Diseases

“An educational program that will allow you not only to improve your professional qualification, but also to become an expert in Arrhythmias”

05 Methodology

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

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



“

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

At TECH we use the Case Method

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

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



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

“

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

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

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



Relearning Methodology

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

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

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



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

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

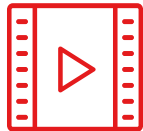
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

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



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



Study Material

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

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



Surgical Techniques and Procedures on Video

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



Interactive Summaries

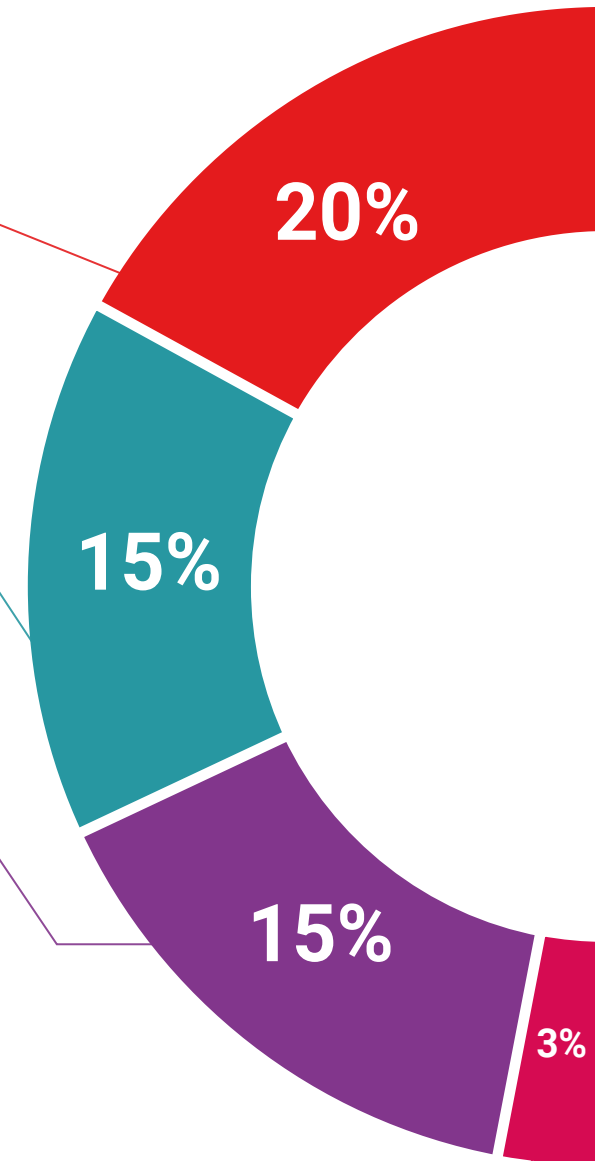
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

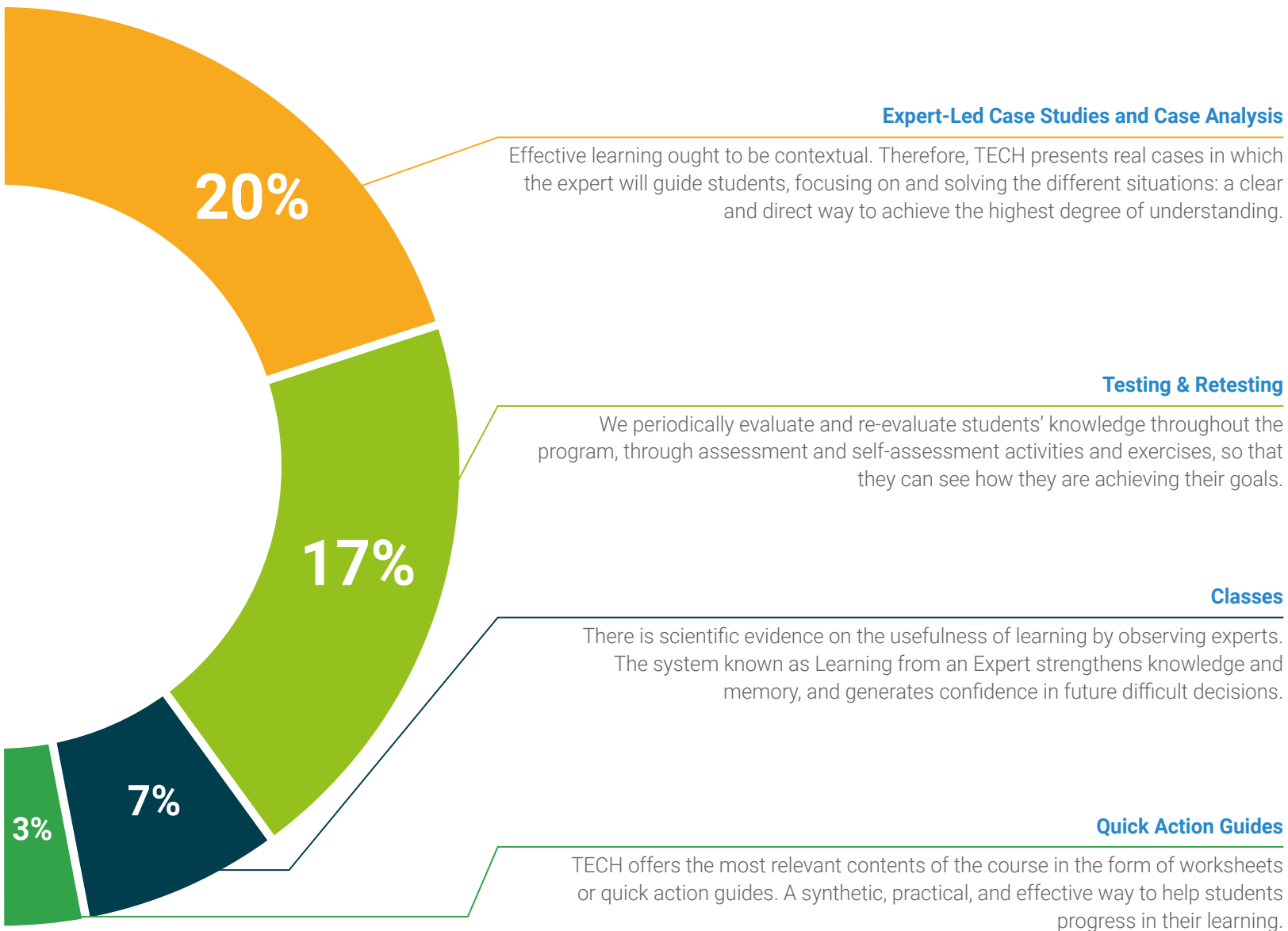
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





06 Certificate

The Postgraduate Diploma in Arrhythmias in Different Clinical Contexts guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

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

This **Postgraduate Diploma in Arrhythmias in Different Clinical Contexts** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma**, issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Arrhythmias in Different Clinical Contexts**

Official N° of Hours: **600 h.**



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

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
virtual classroom



Postgraduate Diploma Arrhythmias in Different Clinical Contexts

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma

Arrhythmias in Different Clinical Contexts