Postgraduate Diploma

Pediatric and Adolescent Cardiology and Cardiac Catheterization

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Postgraduate Diploma
Pediatric and Adolescent Cardiology and Cardiac Catheterization

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

Website: **www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-adolescent-cardiology-cardiac-catheterization**

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01
Introduction

The use of catheterization as a technique to check the state of the heart and to learn more closely how the heart is functioning is used quite frequently in pediatric patients when there are problems related to the cardiorespiratory system. Although it is considered a safe practice, specialists must always act with certainty and conviction, as well as based on the most innovative and specialized guidelines according to patients' characteristics. For that reason, TECH and its team of experts in pediatric and adolescent cardiology have developed a comprehensive program through which students can keep up to date with the latest developments in this field, 100% online. In addition, they will work on updating their knowledge regarding congenital heart disease intervention through 400 hours of theoretical, practical and additional material.

"

A program of the highest clinical level to update your knowledge regarding interventional care in Congenital Heart Disease and other aspects of this field in the pediatric sector"

Cardiovascular disease in children is relatively infrequent when compared with adult patients. However, in most cases, these pathologies have a congenital origin, so addressing them from birth or even before birth is vital in the strict sense of the word. Among the most widespread practices for the diagnosis and knowledge of the severity of the condition is catheterization, through which it is possible to know the state of the heart and blood vessels, in order to determine the quality of the venous connections, the pressure, the oxygen level, the existence of irregular heart rates or in order to repair heart valves that are too narrow or leaking.

As it is a technique widely used both in the pediatric and adult setting, it is constantly evolving, so every year significant changes are made in its use to increase its safety and effectiveness. For this reason, TECH, in its commitment to always offer medical specialists the possibility of keeping up to date, has developed this comprehensive program in Pediatric and Adolescent Cardiology and Cardiac Catheterization, a program with which they will undoubtedly be able to update their knowledge based on the latest advances in the sector. In addition, they will be able to perfect their skills in congenital heart disease interventionism through knowledge of the most innovative techniques and tools to carry out approaches with a very high probability of success.

All this through 400 hours of diverse material, from the best syllabus, designed by specialists in this field, to clinical cases extracted from their consultations and diverse audiovisual content of the highest quality. Everything will be stored in a state-of-the-art Virtual Campus, accessible from any device with Internet connection. In this way, students will have no problem to combine this academic experience with their practice activities, contributing to the advancement of medicine and to the achievement of an even more professional and specialized medical service.

This **Postgraduate Diploma in Pediatric and Adolescent Cardiology and Cardiac Catheterization** 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 Pediatric 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

You will work intensively on the identification, classification and orientation of heart diseases according to the most specialized and innovative clinical criteria"

"You will have 400 hours of theoretical, practical and additional material to delve, in a personalized way, into aspects of the syllabus such as cardiac anatomy or cardiovascular physiopathology"

You will get up to date on the incidences and prevalence of Pediatric Cardiology today thanks to this 100% online program.

A program that will allow you to perfect your skills in managing congenital and acquired heart disease in children and adolescent patients.

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational 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.
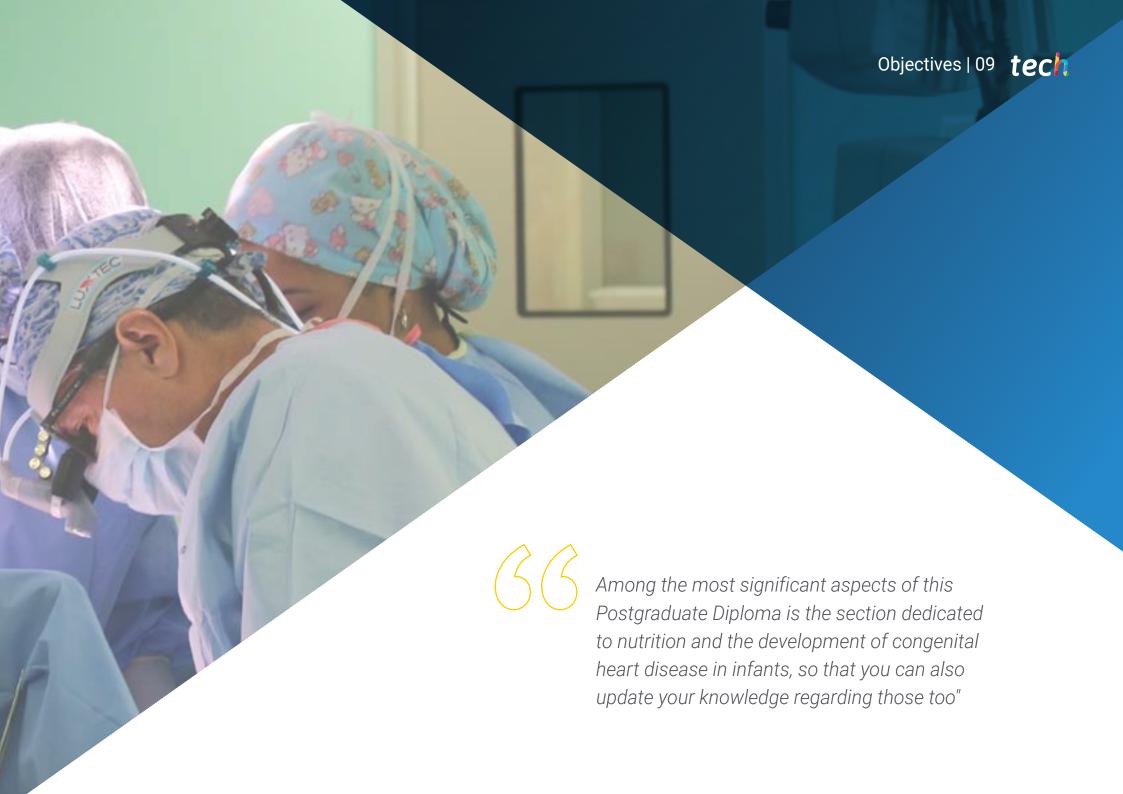
This program is designed around Problem-Based Learning, whereby professionals must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

Medical practice as a whole, but more specifically that related to the cardiovascular field, is very complex and requires constant updating of specialists' knowledge. TECH is aware of the fact that the hustle and bustle of your practice often does not allow you to carry it out at the level you would desire. For this reason, we have developed this comprehensive program, so that you can get up to date on everything related to interventional congenital heart disease in children and adolescents in a guaranteed way and through a 100% online program that is perfectly compatible with your clinical activity.

> *Among the most significant aspects of this Postgraduate Diploma is the section dedicated to nutrition and the development of congenital heart disease in infants, so that you can also update your knowledge regarding those too"*
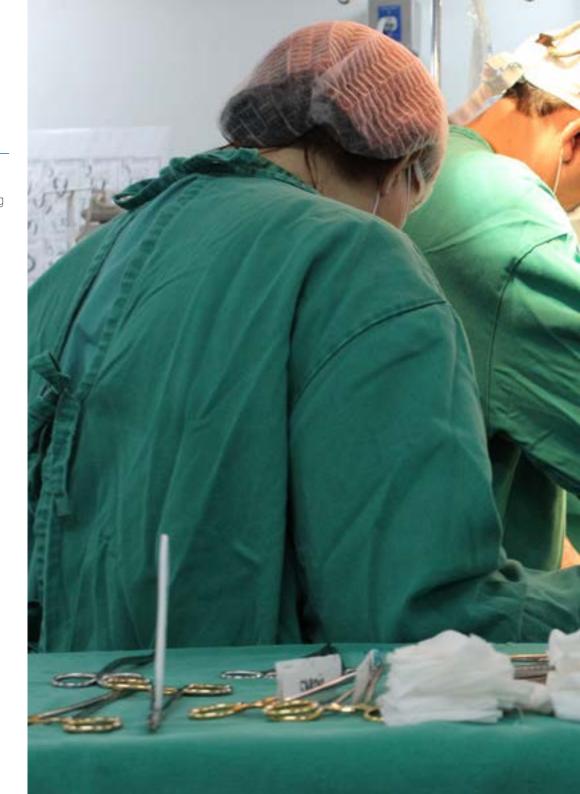
General objectives

- Update students' knowledge in relation to pediatric cardiology in the current clinical setting
- Provide specialists with the most exhaustive and innovative information related to interventionism in congenital heart disease in infants, children and adolescents

A program designed to help you achieve your own goals through the best academic material and a curriculum that adapts to you and to the level required by the medical field"

Specific objectives
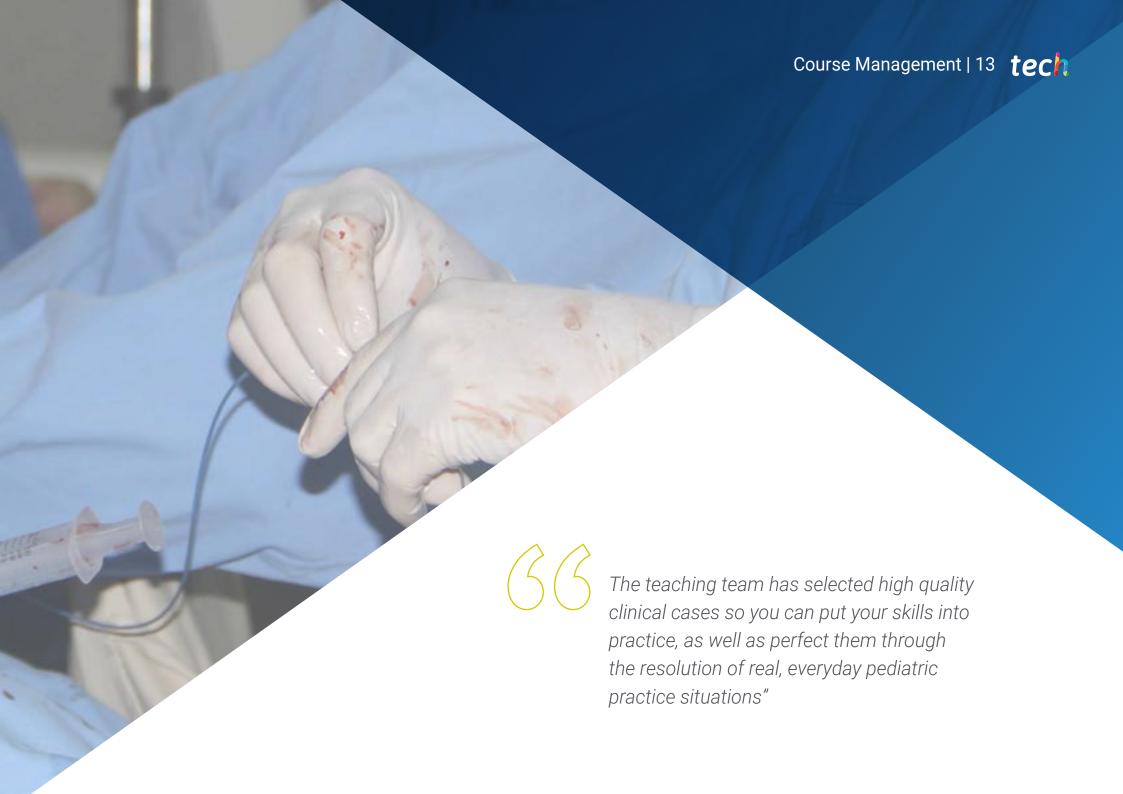
Module 1. Update in Pediatric Cardiology
- Identify, classify and orientate the different types of heart disease in pediatrics
- Delve into the nutrition and development in breastfeeding infants and children with congenital heart disease
- Study the pediatric heart failure and transplantation

Module 2. Interventionism in Congenital Heart Disease
- Understand the terminology and principles of surgery for congenital heart disease and the immediate care that must be given during the patient's stay in the ICU
- Master the valvuloplasty technique
- Study rotational angiography and new imaging techniques in adolescent and adult congenital heart disease
- Delve into the treatment of pulmonary arteries in congenital heart disease

Course Management

TECH always includes the best faculty in its programs, based not only on their curriculum, but also on the human quality that characterizes them. Therefore, it is possible to offer an academic experience of the highest quality, not only guaranteed by a comprehensive and up-to-date syllabus, but also by the support of a team of top-level experts. In this way, students can be sure that, by accessing programs such as this one, they will be able to update their knowledge in a guaranteed manner, as well as learn, in detail, the most effective medical strategies that have placed these professionals at the top of the cardiology sector.

"

The teaching team has selected high quality clinical cases so you can put your skills into practice, as well as perfect them through the resolution of real, everyday pediatric practice situations"

Management

Dr. Gutiérrez Larraya, Federico

- Head of the Pediatric Cardiology at La Paz University Hospital Madrid, Spain
- Head of the Pediatric Cardiology at Ruber International Hospital Madrid, Spain
- Chairman of the Permanent Management Committee of the Children's Hospital La Paz University Hospital Madrid, Spain
- Member of the Platform of Innovation La Paz University Hospital Madrid, Spain
- PhD in Medicine from the Complutense University of Madrid
- Degree in Medicine and Surgery
- Master's Degree in Health Management and Economics from the European Institute of Health and Social Welfare
- Executive Master's Degree in Healthcare Organization Management by ESADE

Dr. Merino Llorens, José Luís

- Head of the Robotized Cardiac Electrophysiology and Arrhythmia Research Unit
- Physician at La Paz University General Hospital. Madrid, Spain
- Degree in Medicine and Surgery

Structure and Content

In order to develop the syllabus for this Postgraduate Diploma, TECH and its teaching team have invested hundreds of hours, with the aim of creating not only the most comprehensive and exhaustive syllabus, but also high-quality additional and practical material. Thanks to this, it has been possible to include 400 hours of multidisciplinary content, through which students can contextualize the information and delve into the different sections of the program in a personalized way, helping them to update their knowledge in a way that suits them, allowing students to decide which area to focus on at to what level.

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In the Virtual Campus you will find detailed videos, research articles, complementary readings, case studies, self-knowledge exercises and much more material to delve into the subject in a personalized way"

Module 1. Update in Pediatric Cardiology

1.1. Epidemiology. Incidence and Prevalence. Terminology. Etiology of Congenital Heart Disease

1.2. Genetic Principles and Congenital Heart Disease

1.3. Cardiac Embryology and Cardiac Anatomy

    1.3.1. Cardiac Anatomy: Elena Sanz

    1.3.2. Cardiac Embryology: Natalia Rivero

1.4. Cardiovascular Pathophysiology, Diagnosis, Support Techniques

1.5. Pediatric Heart Failure and Transplantation

1.6. Nutrition and Development in Breastfeeding Infants and Children with Congenital Heart Disease

1.7. General Aspects in the Management of Heart Disease, both Congenital and Acquired

Module 2. Interventionalism in Congenital Heart Disease

2.1. Basic Hemodynamic Concepts

2.2. Fluoroscopy and Angiography

2.3. Vascular Access

    2.3.1. Conventional Vascular Access

    2.3.2. Alternative Vascular Accesses (Carotid, Axillary and Transhepatic Dissection)

2.4. Valvuloplasty Using the Balloon in All 4 Valves

2.5. Valve Prosthesis. Transcatheter Therapy of Congenital Heart Disease

2.6. Aortic Arch Pathology

2.7. Treatment of Pulmonary Arteries in Congenital Heart Disease

2.8. Intracardiac Short Circuits

2.9. Techniques for Increasing Pulmonary Flow

2.10. Atrioseptoplasty

2.11. Extracardiac Short Circuits

2.12. Transposition of Main Arteries

2.13. Univentricular Heart

2.14. Rotational Angiograph and New Imaging Techniques in Adolescent and Adult Congenital Heart Disease Beyond the Scopy
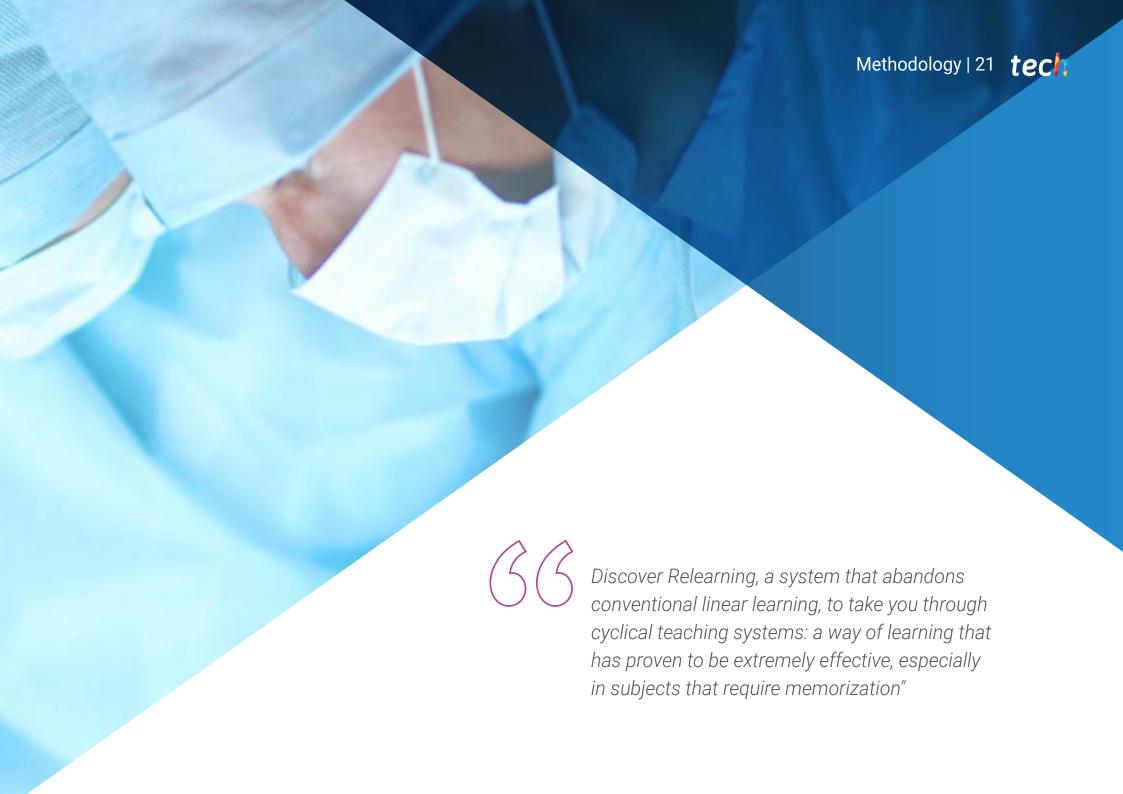
Access the world's largest online medical school and don't miss the opportunity that will help you offer a cutting-edge medical service at the forefront of the advances that have been made in Pediatric Cardiology"

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.
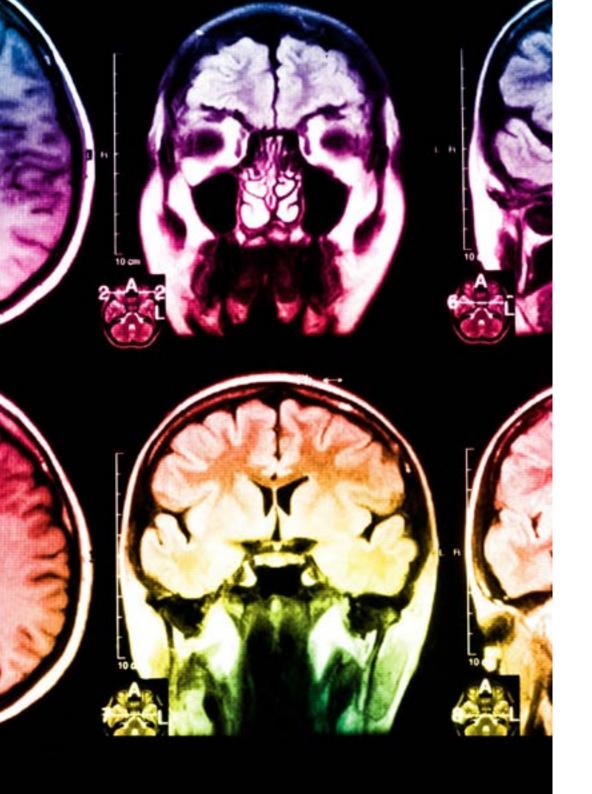
Relearning Methodology

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

20%

15%

15%

3%

20%

17%

7%

3%

Expert-Led Case Studies and Case Analysis

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

Testing & Retesting

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

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

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

Certificate

This Postgraduate Diploma in Pediatric and Adolescent Cardiology and Cardiac Catheterization guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.

" *Successfully complete this program and receive your university degree without travel or laborious paperwork"*

This **Postgraduate Diploma in Pediatric and Adolescent Cardiology and Cardiac Catheterization** 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 diploma 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 Pediatric and Adolescent Cardiology and Cardiac Catheterization**

Official Nº of hours: **400 h.**

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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Pediatric and Adolescent Cardiology and Cardiac Catheterization

This is a qualification awarded by this University, equivalent to 400 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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