Postgraduate Certificate
Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

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Postgraduate Certificate
Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

Course Modality: Online

Duration: 6 weeks

Endorsed by: TECH - Technological University

7 ECTS Credits

Hours 175 hours

Website: www.techtitute.com/us/medicine/postgraduate-certificate/surgery-anesthesia-intensive-care-congenital-heart-diseases

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01

Introduction

The work of the physician in the field of congenital heart disease and pediatric cardiology is very complex. It deals with a wide variety of rare pathologies, with continuous advances in diagnosis and treatment and covers the entire age spectrum, from the fetus to the adult, including the neonate, infant, child and adolescent.

Improve your knowledge through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality medical practice"

There are a lot of professionals involved in this field who come from a diverse range of areas, from clinics to surgery.

To treat these pathologies it is necessary to have specialized training. This is a long process and difficult to achieve, since it is not covered at the undergraduate stage and is not offered at the postgraduate level. Therefore, it is relegated to the hospital care setting. In hospitals, there are very irregular programs in terms of student selection, teaching content, duration and teacher support. In addition, they do not have any academic or institutional endorsement.

This program aims to address these shortcomings and needs by offering the professional a quality training focused on the acquisition of strong skills.

This Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Clinical cases presented by experts in cardiology. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- The latest diagnostic and therapeutic information on how to approach pediatric heart surgery.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- With a special emphasis on evidence-based medicine and research methodologies in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases.
- 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 accessible from any fixed or portable device with an Internet connection.

> Expand your knowledge through the Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases, in a practical way and adapted to your needs”

This Postgraduate Certificate may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Pediatric Heart Surgery, you will obtain a Postgraduate Certificate qualification from TECH Technological University"

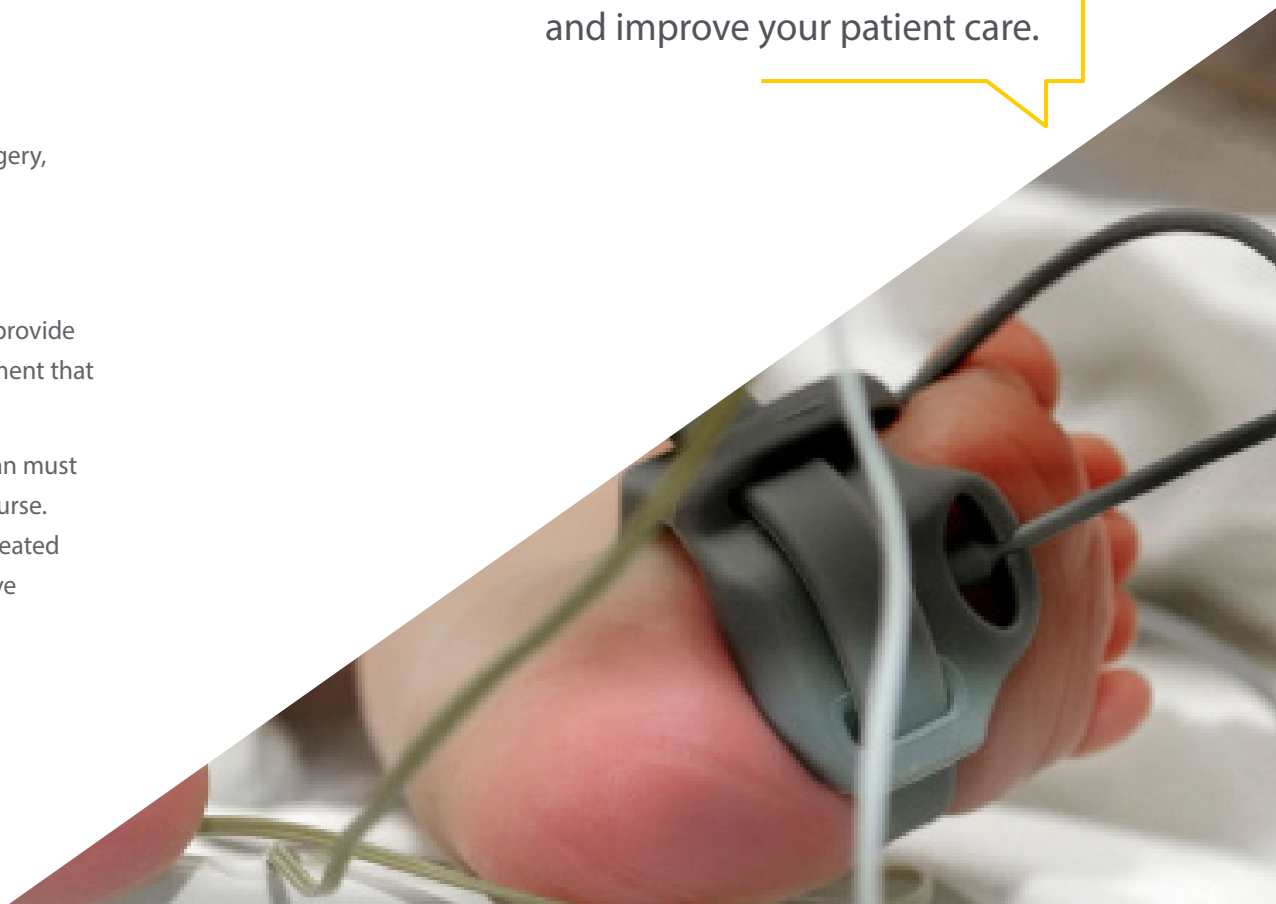
The course includes real clinical cases and exercises to bring the content of the course closer to the clinical practice of a physician.

Make the most of the opportunity to update your knowledge in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases and improve your patient care.

Forming part of the teaching staff is a group of professionals in the world of Surgery, Anesthesia and Congenital Heart Disease, who bring to this course their work experience, as well as a group of renowned specialists, recognised by esteemed scientific communities.

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

This program is designed around Problem Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of heart surgery with extensive teaching experience.



02

Objectives

The program's primary objective is focused on theoretical and practical learning, so that the doctor is able to master Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases in both a practical and rigorous manner.

This program will provide you with the skills to carry out your medical praxis with confidence and will help you to grow both personally and professionally”

General Objective

- Provide the theoretical knowledge necessary to understand the environment in which professional care is given to patients with heart disease.
- Develop the necessary skills to diagnose and treat a patient with heart disease.
- Apply the most innovative diagnostic methods to detect congenital heart disease in breastfeeding infants, children and adolescents with heart problems.
- Determine the appropriate treatment for congenital heart disease in the pediatric age group.
- Gain in-depth understanding of the areas in which professionals must be trained, in order for them to be able to provide the best practice when dealing with fetuses, children and adolescents with heart disease, both congenital and acquired.

Specific Objectives

- Define the palliative and corrective surgical techniques in congenital heart disease.
- Describe strategies to reduce perioperative neurological vulnerability.
- Explain the different complications than can occur in the surgical treatment of congenital heart disease.
- Apply strategies to avoid or reduce these complications.

Make the most of the opportunity and take the step to get up-to-date on the latest developments in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases"

03

Course Management

This program includes highly regarded health professionals in the field of pediatric heart surgery in its teaching staff, who bring the experience of their work to this training. In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.

Learn the latest advances in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases from leading professionals"

International Guest Director

Dr. Luc Mertens is a leading international figure in the field of Pediatric Cardiology, with a special focus on echocardiography. A graduate of the Faculty of Medicine of the University of Leuven in Belgium, he has built a remarkable career since then. As such, he has trained as a Pediatrician and Pediatric Cardiologist at the University Hospitals of Leuven, acquiring a solid clinical and research background.

Since then, he has played a crucial role as a Pediatric Cardiologist at the same hospitals, having risen to a position of high responsibility as Section Head of Echocardiography at the Hospital for Sick Children in Toronto, Canada, thanks to his well-deserved merits as a medical professional.

Furthermore, there is no doubt that Dr. Mertens has left an indelible mark on the field of pediatric echocardiography, both clinically and academically. Indeed, his leadership in the organization of accreditation in this field in Europe has been fundamental, being recognized for his contribution within the European Association of Pediatric Cardiology and the European Association of Echocardiography. He has also played a leading role in the Pediatric Council of the American Society of Echocardiography.

In addition to his clinical and leadership work, Dr. Mertens is a prolific researcher, with more than 150 peer-reviewed articles and significant contributions to the development and validation of new echocardiographic techniques to assess cardiac function in children. Likewise, his commitment to academic excellence is reflected in his participation in the editorial board of several scientific journals, as well as in his role as editor of one of the leading textbooks in the field of pediatric and congenital echocardiography.

Dr. Mertens, Luc

- Section Head, Echocardiography, The Hospital for Sick Children, Toronto, Canada
- Pediatric Cardiologist at the University Hospitals of Leuven
- Specialist in Pediatrics and Pediatric Cardiology at the University Hospitals of
- Leuven and at the Mayo Clinic in Rochester
- Doctor of Medical Sciences from the University of Leuven
- Degree in Medicine from the University of Leuven
- Member of: European Association of Pediatric Cardiology, European Association of Echocardiography, American Society of Echocardiograph

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

Management

Dr. Gutiérrez - Larraya, Federico

- PhD in Medicine Complutense University Madrid
- Head of the Pediatric Cardiology at La Paz University Hospital
- Head of the Pediatric Cardiology at Ruber International Hospital
- Master's Degree in Clinical and Health Psychology European Institution of Health and Social Wellbeing
- Executive Master's Degree in Healthcare Organization Management. ESADE.
- Chairman of the Permanent Management Committee of the Children's Hospital La Paz University Hospital
- Member of the Platform of Innovation La Paz University Hospital

Professors

Dr. Centella, Tomasa

- President of the Spanish National Commission of the Cardiovascular Surgery

Dr. Gonzalez Rocafort, Alvaro

- Pediatric Heart Surgeon at La Paz Hopistal

Dr. Sanchez, Raul

- Pediatric Cardiology and Congenital Cardiopathies Surgeon. La Paz University Hospital

Dr. Villagrá, Fernando

- PhD in Medicine
- Head of Department of Pediatric Cardiology and Surgery and Congenital Heart Diseases in Adults. HM Hospitals

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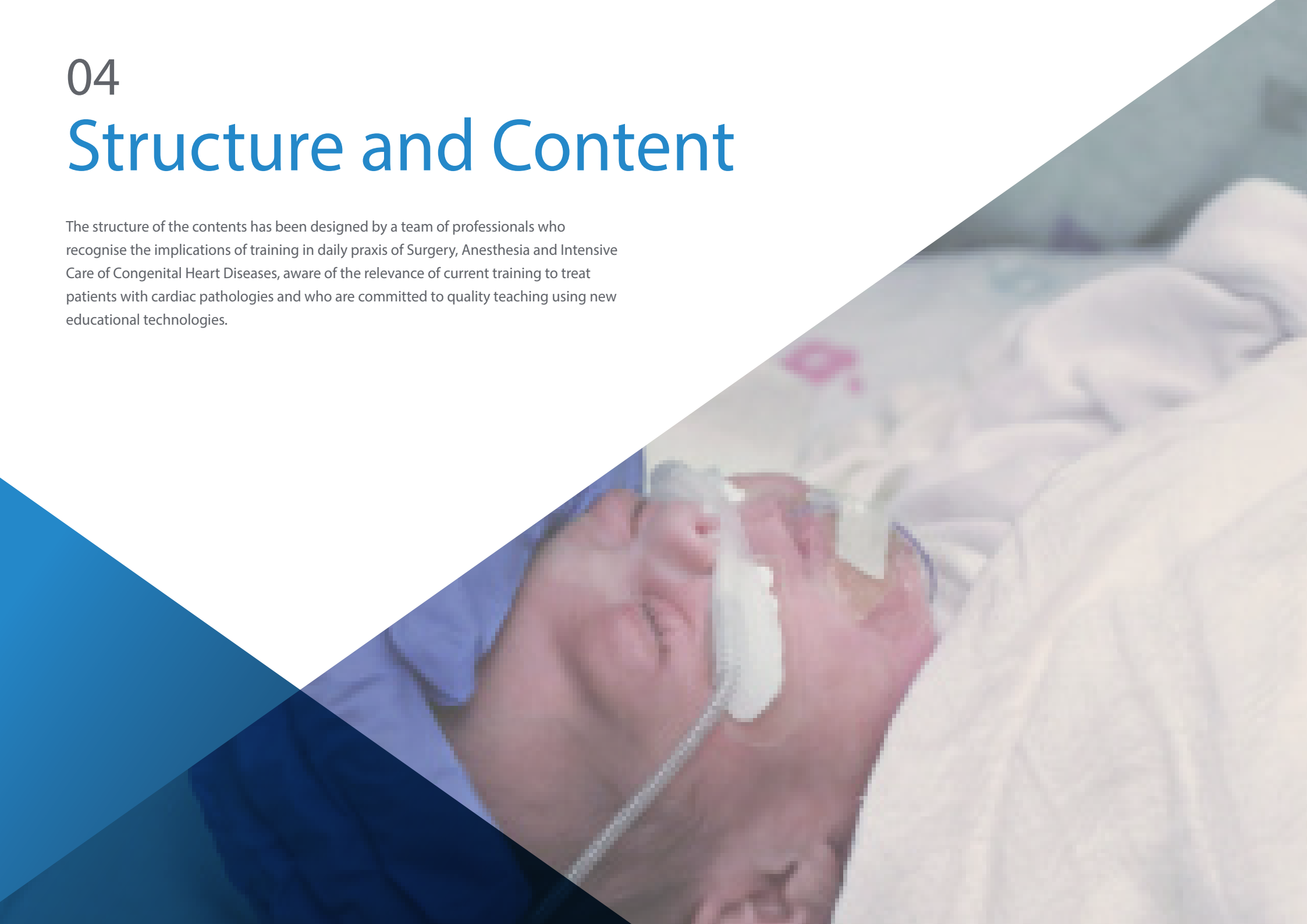
Structure and Content

The structure of the contents has been designed by a team of professionals who recognise the implications of training in daily praxis of Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases, aware of the relevance of current training to treat patients with cardiac pathologies and who are committed to quality teaching using new educational technologies.



This Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases contains the most complete and up-to-date scientific program on the market"

Module 1. Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

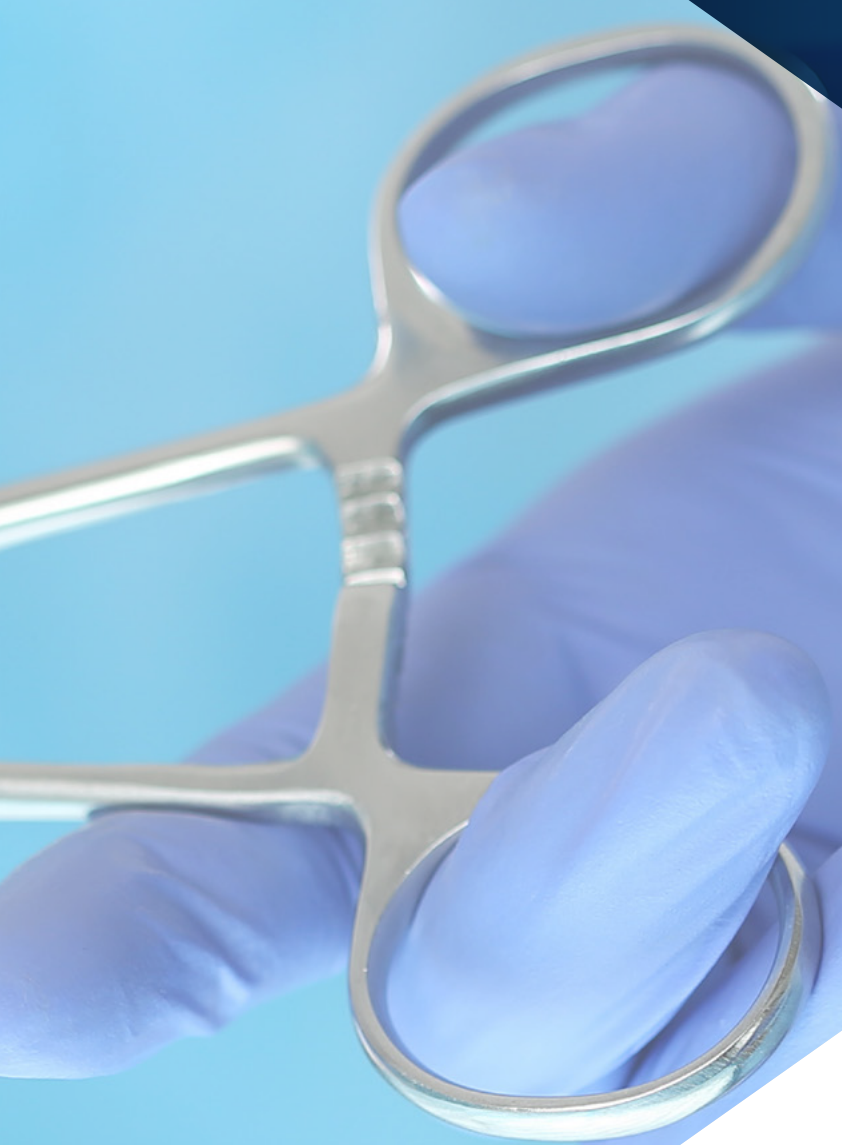
1.1. Up-to-date Information on Congenital Cardiac Surgery
1.2. Palliative and Corrective Surgical Techniques
  1.2.1. Intra- and Post-Operative Cardiac Arrest
  1.2.2. Hypothermia
  1.2.3. Transfusion Blood Saving
1.3. Strategies to Reduce Perioperative Neurologic Vulnerability
  1.3.1. Neurological Lesions
  1.3.2. Convulsions, Neurological Deficit, Stroke
1.4. Low Postoperative Expense
  1.4.1. Cardiac Dysfunction
  1.4.2. Postoperative Mechanical Circulatory Support
  1.4.3. Pulmonary Hypertension Crisis
1.5. Renal Complications
  1.5.1. Renal Purification Techniques
1.6. Pulmonary Complications
  1.6.1. Respiratory Assistance Methods
  1.6.2. Post-Operation Infections
  1.6.3. Pneumonia, Sepsis
1.7. Other Complications
  1.7.1. Infection of Surgical Wounds
  1.7.2. Recurrent Laryngeal Nerve Injury
  1.7.3. Postoperative Cardiac Tamponade
  1.7.4. Pericardiocentesis
  1.7.5. Thoracentesis
  1.7.6. Phrenic Plication and Others
1.8. Post-operative Period With and Without Complications in Adults
1.9. Long-Term Monitoring Protocols
  1.9.1. Preconception Counseling
  1.9.2. Management During Pregnancy in Congenital Heart Disease
  1.9.3. Cyanosis and Congenital Heart Disease in Adults

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

05

Methodology

This training program provides you with a different way of learning. Our methodology follows a cyclical learning process: Re-learning.
This teaching system is used 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.

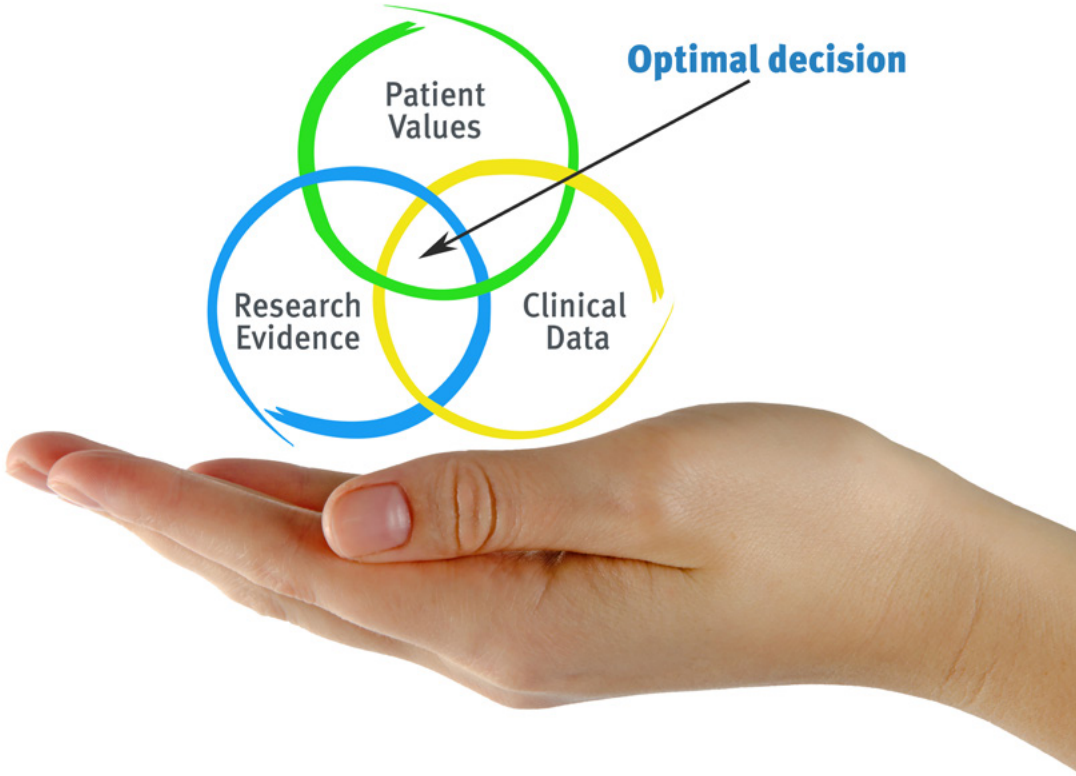


Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

In a given situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is adundant scientific evidence on the effectiveness of this method. Specialists learn better, faster, and more sustainably over time.

> With TECH you can 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 potential 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 professional medical 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:

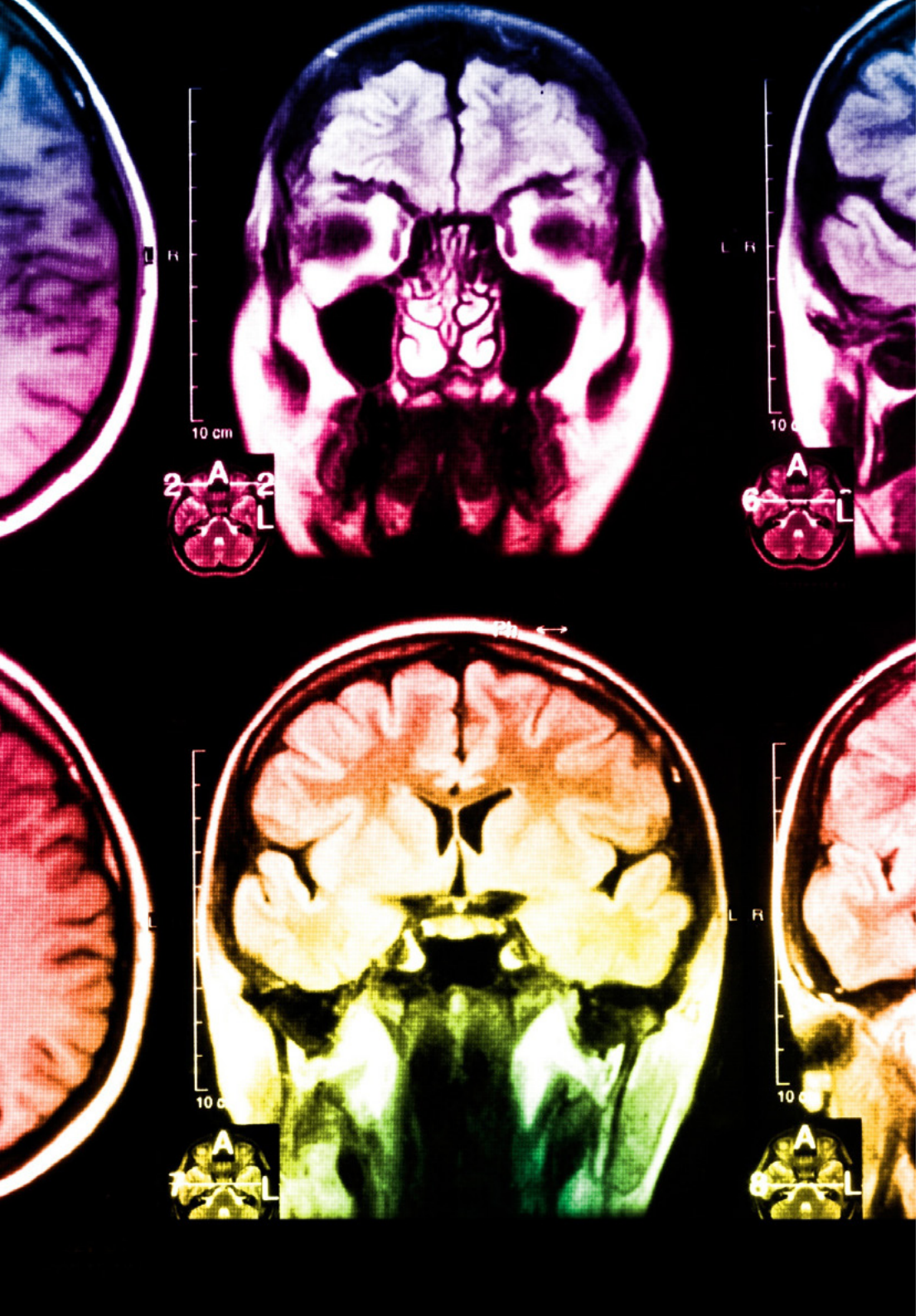
1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts 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.

Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

The physician will learn through real cases and by solving 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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

In this program you will have access to the best educational material, prepared with you in mind:

Study Material

All the teaching materials are specifically created for the course, by specialists who teach on 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.

Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.

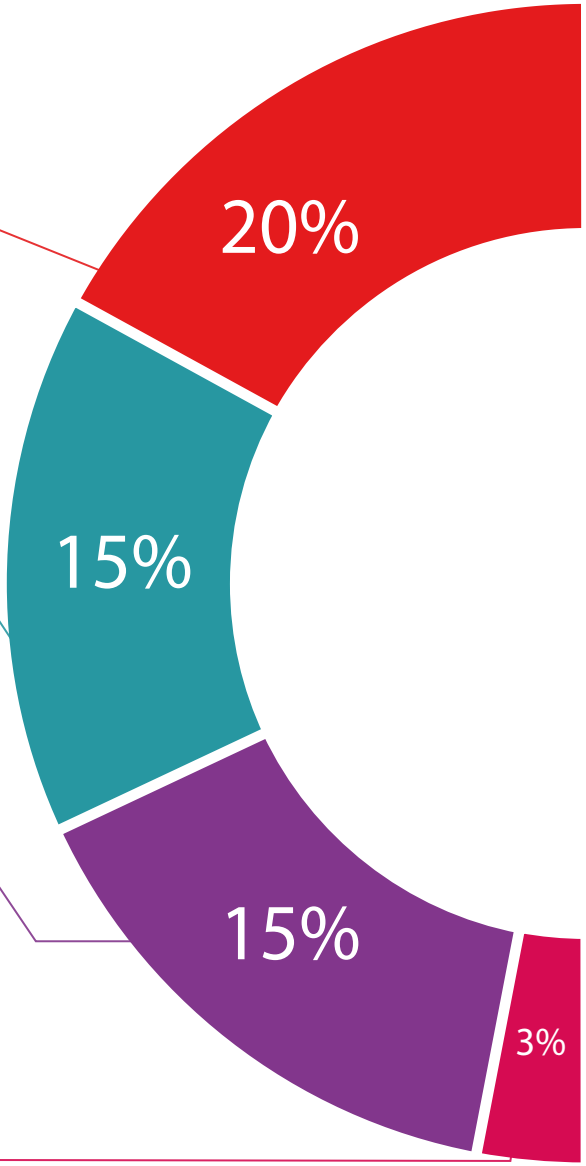
Interactive Summaries

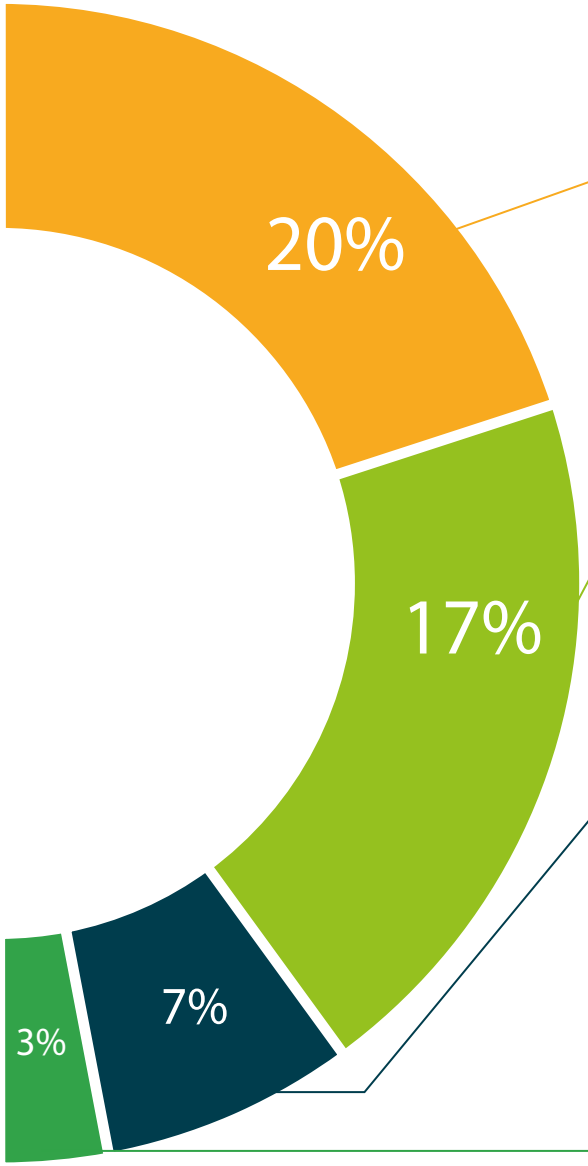
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system 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 training.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Re-Testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.

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 in our difficult future decisions.

Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

06

Certificate

The Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases guarantees you, in addition to the most accurate and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this training and receive your diploma without the hassle of travel or paperwork"

This Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases contains the most complete and up-to-date scientific program on the market.

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

Diploma: Postgraduate Certificate in Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

7 ECTS

Hours: 175 hours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Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

This is a qualification awarded by this University, with 7 ECTS credits and equivalent to 175 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 Apostilled, TECH EDUCATION will make the necessary arrangements to obtain it at an additional cost of €140 plus shipping costs of the Apostilled diploma.

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Surgery, Anesthesia and Intensive Care of Congenital Heart Diseases

Course Modality: Online

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7 ECTS Credits

Hours 175 hours

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