

# Postgraduate Diploma Valvular Pathology Nursing





## Postgraduate Diploma Valvular Pathology Nursing

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

Website: [www.techtitute.com/in/nursing/postgraduate-diploma/postgraduate-diploma-valvular-pathology-nursing](http://www.techtitute.com/in/nursing/postgraduate-diploma/postgraduate-diploma-valvular-pathology-nursing)

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# 01

# Introduction

The leading cause of death in the world continues to be cardiovascular disease. Despite the major health problems caused by covid-19, concern about the upward trend in the number of deaths due to cardiac pathologies has not been forgotten. The WHO confirms in its data that the number of deaths related to heart disease has been rising for more than 20 years. Thanks to advances in research and technology, many cases are halting the development of the disease, but this overall figure is still not declining. This qualification allows the nurse to continue to maintain a high level of professional praxis, incorporating the latest advances into their daily practice, and to have access to the most recent developments in the field of valvular pathologies. The entire program can be followed from anywhere and at any time thanks to the 100% online mode of this qualification.





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*Delves into the latest advances and techniques used in palliative care units for patients with heart disease, by nursing professionals of great prestige"*

The origin of valvular pathologies is diverse, not only attending to anomalies categorized according to the age of the patient, but there are also a multitude of syndromes that it is necessary to keep in mind following the latest lines of scientific research in the area of cardiology.

Taking into account the devastating results that show the number of deaths in the world due to cardiac pathologies, it is not surprising that the nursing professional wants to broaden his knowledge with the latest techniques and empirical results in this specialty. Congenital heart disease in pediatric age and congenital heart disease in adults derived from genetic information are a common thread to strengthen the epistemology of cardiovascular diseases.

This program has been developed in such a way that the nurse is able to combine his or her work activities with the course without difficulty, thanks to the *Relearning* method. TECH aims to guarantee the maintenance and updating of the cardiology professional's competencies in the best way, providing all the material with a simple click, even after completing the qualification. You will only need internet and an electronic device to have the latest information and techniques on valvular pathologies.

This **Postgraduate Diploma in Valvular Pathology Nursing** 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 Valvular Pathology Nursing
- ♦ 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
- ♦ 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



*During the development of the course, you will have the support and follow-up of the tutors of each tutors for each module, you will be able to consult the audiovisual material, complementary readings and self-knowledge exercises whenever you need them"*



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*Discover the latest developments in the research of hereditary circulatory disorders, more specifically in hereditary hemorrhagic telangiectasia, Von Hippel-Lindau syndrome and disorders that mainly affect the arteries"*

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 the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*You will continue to perfect the specific forms of pericarditis: bacterial, tuberculous, in renal failure, etc., from the best experts in Valvular Pathology.*

*Get up to date on primary rhythm and conduction disorders, with emphasis on Marfan syndrome, Ehlers-Danlos syndrome and pseudoxanthoma elasticum.*



# 02 Objectives

Among the objectives of this Postgraduate Diploma is to provide the nursing professional with updated theoretical knowledge and the latest practical resources. In this way, they will be able to master and incorporate into their daily work the most important developments within the framework of cardiology, especially in the area of vascular pathologies. Throughout the 3 modules that make up this program, the nurse will gather the most updated information with multimedia material accessible from anywhere, strengthening their skills and acquiring new pioneering techniques in the field of cardiology.





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*Discover the latest advances and current treatments for dilated cardiomyopathies (DCM), causes and symptoms”*



## General Objectives

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- ♦ To provide the student with the necessary theoretical knowledge and the necessary practical resources for the performance of his/her healthcare activity
- ♦ Provide comprehensive patient care to solve, individually or as members of a team, health problems with efficiency and quality criteria
- ♦ Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study
- ♦ To be able to acquire a comprehensive and up-to-date vision in the field of acute and critical cardiac care that brings together hospital care, primary care and socio-health care of patients



*Update your knowledge on how genetics affects congenital heart disease in pediatric age and adult congenital heart disease"*





## Specific Objectives

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### Module 1. Valvular Myocardial and Pericardial Disease

- ◆ Clarify knowledge of the different cardiomyopathies, their inheritance, clinical presentation and evolution
- ◆ Learn more about these cardiomyopathies because they can present with sudden death as clinical debut, and their tendency to affect patients in younger decades of life, otherwise considered healthy from the cardiovascular point of view

### Module 2. Genetics and Other Cardiovascular Diseases

- ◆ Classify the different cardiomyopathies from diagnosis, treatment, evolution and follow-up, as well as know the difference between congenital heart disease and hereditary or familial heart disease
- ◆ Identify, evaluate and approach the end-of-life phase of cardiological patients, with a correct application of palliative care
- ◆ Know and approach patients with less prevalent pathologies, but with high morbimortality such as pulmonary thromboembolism and cardiac tumors
- ◆ Know the role of nurses in the cardiological clinical research area

### Module 3. Clinical Fundamentals of Diagnostic Imaging in Cardiology: Imaging Techniques

- ◆ Understand the basic anatomical planes that define an echocardiographic study
- ◆ In-depth knowledge in the pathophysiological changes that occur in the different cardiac pathologies
- ◆ Have notions about the basic aspects to be analyzed with Doppler echocardiography in the different cardiac pathologies
- ◆ Learn more about the different types of studies and indications of nuclear cardiology



03

# Course Management

TECH is committed to the most innovative educational programs that provide nurses with the technical recycling necessary to keep up to date with the latest empirical results in the different health areas. To this end, it meticulously selects the entire teaching staff, based on curricula of active professionals committed to scientific research and the approach to valvular pathologies as the main line of work. The commitment of the teaching staff meets the quality standards that characterize the university, ensuring those who take this qualification a rich and updated program with the latest medical developments.





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*Discover the latest developments in doppler ultrasound and transesophageal echocardiography as part of the imaging specialties”*

## Management



### Ms. Capote Toledo, María Luz

- ♦ Coordinator of the Hemodynamics and Arrhythmia Room at the Hospital Príncipe de Asturias and Hospital Severo Ochoa, in Madrid
- ♦ Supervisor of Heart Failure, Cardiac Rehabilitation, Cardiopulmonary Explorations (Imaging, Ergometry and Holter) and High-Resolution Cardiology Consultations at Clinical Hospital San Carlos in Madrid
- ♦ Supervisor of Hemodynamics and Electrophysiology at San Carlos Clinical Hospital, in Madrid
- ♦ Graduate in Nursing at the Complutense University of Madrid
- ♦ Master 's Degree in Health Care Quality, Rey Juan Carlos University in Madrid in collaboration with the Laín Entralgo Agency

## Professors

### Ms. Gómez Barriga, María Dolores

- ♦ Cardiology Supervisor at the Cardiovascular Institute of the San Carlos Clinical Hospital in Madrid
- ♦ Graduate in Nursing at the Complutense University in Madrid
- ♦ program in Physiotherapy at Rey Juan Carlos University, Madrid
- ♦ Master's Degree in Health Management at the University of La Rioja
- ♦ Ultrasound Course: Study of the musculoskeletal system for Physiotherapists, Continuing Education Commission of the Health Professions of the Valencian Community
- ♦ Member of AEEC.

### Mr. López García, David

- ♦ Coronary and Hemodynamic Care Nurse Practitioner
- ♦ Nurse at Clinical Hospital San Carlos in Madrid.
- ♦ Degree in Nursing at the Francisco de Vitoria University
- ♦ Course of Clinical Electrocardiography. Diagnosis and Treatment of Cardiac Arrhythmias at Clinical Hospital San Carlos in Madrid
- ♦ Course of Essential Concepts in the Hemodynamics Room at Medtronic
- ♦ Course on Coronary and Structural -CSC 21- Nursing at Clinical Hospital San Carlos





**Ms. Pérez Serrano, Mónica**

- ◆ Expert Nurse in Heart Failure Service
- ◆ Nurse in the Heart Failure Unit of the Hospital Clínico San Carlos in Madrid
- ◆ Cardiac and Vascular Surgery Service of the Hospital Clínico San Carlos in Madrid
- ◆ Department of Internal Medicine and Neurology Fundación Jiménez Díaz
- ◆ Rotation training in a referral center in Heart Failure, Hospital del Mar, Barcelona
- ◆ Rotation training in reference center in Heart Failure and Transplantation, Hospital Juan Canalejo, A Coruña
- ◆ Diploma in Nursing, European University of Madrid
- ◆ Master's Degree in Value-Based Management at the Universidad Rey Juan Carlos
- ◆ Expert in Heart Failure for Nurses at the Francisco de Victoria University
- ◆ Expert in Operating Room and Resuscitation at the European University of Madrid
- ◆ Expert in Nursing in out-of-hospital emergencies at European University of Madrid

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

# 04

## Structure and Content

The Postgraduate Diploma in Valvular Pathology Nursing is composed of 3 modules that will be taught progressively over 6 months. During this time, the nurse will consolidate and discover the latest developments in valvular pathologies on the international scene. The global vision of the program brings the nursing professional closer to mastering the most recent cardiological research. TECH uses the Relearning method as a driving force towards knowledge, which facilitates the incorporation of new diagnostic methods and the latest trends in prevention and treatment.





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*Perfecting your cardiology skills is absolutely compatible with your professional and personal life thanks to this 100% online qualification"*



## Module 1. Valvular Myocardial and Pericardial Disease

- 1.1. Acute Myocarditis
- 1.2. Dilated Cardiomyopathy (DCM)
  - 1.2.1. Causes and Symptoms
  - 1.2.2. Recent Advances and Current Treatment
- 1.3. Restrictive Cardiomyopathies
- 1.4. Hypertrophic Cardiomyopathy (HCM)
  - 1.4.1. Symptoms, Diagnosis
  - 1.4.2. Genetic Studies
  - 1.4.3. Treatment and Prognosis
- 1.5. Etiology and Classification of Pericardial Diseases
  - 1.5.1. Congenital Pericardial Defects
  - 1.5.2. Acute Pericarditis
  - 1.5.3. Chronic Pericarditis
  - 1.5.4. Recurrent Pericarditis
  - 1.5.5. Pericardial Effusion and Cardiac Tamponade
  - 1.5.6. Constrictive Pericarditis
  - 1.5.7. Pericardial Cysts
  - 1.5.8. Specific Forms of Pericarditis: Bacterial, Tuberculous, in Renal Insufficiency, etc.
- 1.6. Rheumatic Fever and Rheumatic Heart Disease
- 1.7. Tricuspid Valve Disease
  - 1.7.1. Tricuspid Regurgitation
  - 1.7.2. Tricuspid Stenosis
- 1.8. Aortic and Mitral Valve Disease
- 1.9. Infectious Endocarditis
- 1.10. Inflammatory Disorders of the Cardiac Valves
  - 1.10.1. Non-Bacterial Thrombotic Endocarditis
  - 1.10.2. Endocarditis in Systemic Lupus Erythematosus

## Module 2. Genetics and Other Cardiovascular Diseases

- 2.1. Pediatric Congenital Heart Disease
  - 2.2. Adult Congenital Heart Disease
    - 2.2.1. Left to Right Short Circuits
      - 2.2.1.1. Atrial Septal Defect (ASD)
      - 2.2.1.2. Ventricular Septal Defect (VSD)
      - 2.2.1.3. Patent Ductus Arteriosus (PDA)
      - 2.2.1.4. Atrioventricular Septal Defect (AVSD)
    - 2.2.2. Right-to-Left Short Circuits
      - 2.2.2.1. Tetralogy of Fallot
      - 2.2.2.2. Transposition of the Great Arteries
      - 2.2.2.3. Truncus Arteriosus
      - 2.2.2.4. Tricuspid Atresia
      - 2.2.2.5. Total Anomalous Connection of the Pulmonary Veins
  - 2.2.3. Obstructive Congenital Disorders
    - 2.2.3.1. Pulmonary Stenosis and Atresia
    - 2.2.3.2. Aortic Stenosis and Atresia
- 2.3. Primary Rhythm and Conduction Disorders
  - 2.3.1. Marfan Syndrome
  - 2.3.2. Ehlers-Danlos Syndrome
  - 2.3.3. Elastic Pseudoxanthoma
- 2.4. Hereditary Circulatory Disorders
  - 2.4.1. Hereditary Hemorrhagic Telangiectasia
  - 2.4.2. Von Hippel-Lindau Syndrome
  - 2.4.3. Arterial Disease
  - 2.4.4. Venous Disease
- 2.5. Pulmonary Thromboembolism and Pulmonary Hypertension
- 2.6. Oral Anticoagulation in Cardiology
- 2.7. Cardiac Tumors
- 2.8. Palliative Care in Cardiology
- 2.9. Clinical Trials in Cardiology
- 2.10. Amyloidosis



### Module 3. Clinical Fundamentals of Diagnostic Imaging in Cardiology: Imaging Techniques

- 3.1. Chest X-Ray
- 3.2. Fundamentals of Doppler Echocardiography
- 3.3. Complete Transthoracic Echocardiography
- 3.4. Transesophageal Echocardiogram
  - 3.4.1. Main Indications
- 3.5. Echocardiogram in the Different Cardiac Pathologies
  - 3.5.1. Echocardiogram in Valvular Diseases
  - 3.5.2. Echocardiogram in Ischemic Heart Disease
  - 3.5.3. Echocardiogram in Emergency Situations
  - 3.5.4. Other Pathologies
- 3.6. Stress Echocardiogram
  - 3.6.1. Indications
- 3.7. Contrast Echocardiogram
  - 3.7.1. Indications
- 3.8. Fundamentals of Nuclear Cardiology
  - 3.8.1. Main Indications
- 3.9. Fundamentals of Cardioresonance
  - 3.9.1. Clinical Applications
- 3.10. Fundamentals of Cardiac CT
  - 3.10.1. Clinical Applications



*The most efficient way to update your knowledge is by relying on nursing professionals with the most modern didactic material in the area of Valvular Pathology"*

# 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.





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*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 Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing practice.

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*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. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse 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 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 we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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 really 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.



### Nursing 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 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 them as many times as you want.



### 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.







#### 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 suggesting that observing third-party experts can be useful.

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.



06

# Certificate

The Postgraduate Diploma in Valvular Pathology Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.





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



This **Postgraduate Diploma in Valvular Pathology Nursing** contains the most complete and up-to-date 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 Valvular Pathology Nursing**

Official N° of hours: **450 h.**



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

online training

development language

classroom

**tech** technological  
university

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