



Postgraduate Diploma

Cardiac, Vascular and Thoracic Surgery for Nurses

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We b site: www.techtitute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-cardiac-vascular-thoracic-surgery-nurses with the control of the contro

Index

02 Objectives Introduction p. 8 p. 4 03 05 Course Management Methodology **Structure and Content** p. 12 p. 18 p. 22

06

Certificate

p. 30





tech 06 | Introduction

Each of the wide variety of surgical interventions that are performed requires a specific procedure, a specific technique and the exclusive surgical material for that intervention. One thing they all have in common is a series of steps and rules that all team members should know in detail. They must also know the general functioning of the surgical department in order to prevent and avoid common risks while carrying out professional work. Healthcare institutions are well aware of this and demand academic profiles with a specialization that adapts to the requirements of the job and professionals who are qualified and endorsed to carry out the work.

This postgraduate diploma contains the most complete and updated scientific program on the market, with the main objective of training in generic and specific competencies in a surgical process and facilitates the updating of the professional in a practical way and adapted to their needs. The modules that make up this course are aimed at updating the knowledge of nursing professionals who already perform their functions in the surgical field and for those new professionals who wish to develop their functions in the surgical field where a high qualification is required and increase their professional competence in the provision of surgical nursing care to the patient, before, during and after surgery in a holistic manner.

The innovative educational method, which includes real clinical cases and exercises to bring the development of the program closer to the surgical practice, is based on Problem Based Learning, by means of which the student must try to solve the different professional practice situations that arise during the program. For this reason, you will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of radiology with extensive teaching experience. This ensures that the professional, whether or not they have worked in any of the sections that make up the perioperative process, integrates into their work practice the experience of professionals already working in leading hospitals at a national and international level with a high scientific, technological and humanistic level.

This knowledge will facilitate the provision of quality care throughout the surgical process to ensure the safety of the patient and the professional at all times.

This **Postgraduate Diploma in Cardiac, Vascular and Thoracic Surgery for Nurses** 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 the different fields of multidisciplinary knowledge.
 The graphic, schematic, and eminently practical contents with which they are created, provide provide scientific and healthcare training on those disciplines that are essential to professional practice.
- · Cardiac, Vascular and Thoracic surgery news for nursing.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- With special emphasis on evidence-based and surgical nursing research methodologies.
- All 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.



Increase your skills in the approach to cardiac, vascular and thoracic surgery for nursing through this program"



This Postgraduate Diploma may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Cardiac, Vascular and Thoracic Surgery, you will obtain a Postgraduate Diploma from TECH Technological University"

Forming part of the teaching staff is a group of professionals in the world of surgical nursing who bring to this specialization 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 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 surgical nursing with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma in Cardiac, Vascular and Thoracic Surgery for Nurses.

Don't miss the opportunity to update your knowledge in cardiac, vascular and thoracic surgery to improve patient care.







tech 10 | Objectives



General Objectives

- Update your knowledge on advanced nursing practice in perioperative care within the different medical-surgical specialities through nursing based on evidence.
- Promote work strategies based on perioperative patient care, as a reference model in the achievement of healthcare excellence.
- To encourage the learning of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online workshops for simulation and/ or specific specialization.
- Encouraging professional development through research and dynamic and up-to-date continuous specialization.
- Define the perioperative surgical process, the three stages involved and identify the different areas in which they take place.
- Describe the nursing professional's interventions, depending on the point in time of surgery.
- · Acquire skills to control potential anxiety and pain in a patient.
- Learn the most-used anesthetic techniques, their indications and complications, and control the mechanisms of action and side effects of the administered drugs.
- Acquire the necessary skills to collaborate with the rest of the surgical team in critical moments.
- Learn to supervise and participate in patient handling and transfers, ensuring patient comfort and safety.
- Know how to communicate the necessary information about the patient to the nursing professional who will provide the follow-up care.
- Explain the legal responsibility of a nurse in surgical practice.
- Acquire the necessary knowledge for each surgery about the anatomy of the area to be operated on, the necessary equipment, supplies and instruments, and the required anesthesia and positioning.
- Strengthen the specific specialization of perioperative nurses required in the different surgical specialties.



Specific Objectives by Modules

- Differentiate between biological and mechanical valves and know what preparation each one requires.
- Become highly qualified in microsurgery and know how to handle autologous vascular grafts in aorto-coronary bypass surgery.
- Explain the correct manipulation of the different implants used in the interventions performed on the aorta.
- Manage emergency situations (cardiac rupture/cardiac tamponade/aortic dissection), having all the necessary material ready and collaborating with the rest of the team.
- Explain the technique for the placement of chest drains in pericardiectomy.
- Describe the use of leads and generators required for interventions in cardiac rhythm disorders (pacemakers and ICDs).
- Differentiate between and explain the use of different monitors, devices and systems needed for the placement and subsequent control of balloon counterpulsation and ventricular assist devices
- Describe the role of the heart-lung machine in cardiac surgery and the skills of the perfusionist nurse in charge of its operation.
- List the prerequisites of a hospital to be able to house such a specialty.
- Correctly complete administrative documents for subsequent processing.
- Collect samples for later processing in the necessary sub-department.
- Describe the surgical material used in each intervention.
- Control the assembling and use of the specific equipment and devices used in each intervention.
- Solve different incidents related to equipment and expendable or non-expendable material.
- Identify the need for certain devices in the operating room.
- Decide appropriately on the use of suture for each procedure.
- Identify the component structures of the respiratory apparatus.
- · Create diagrams showing the relationship between the structures.

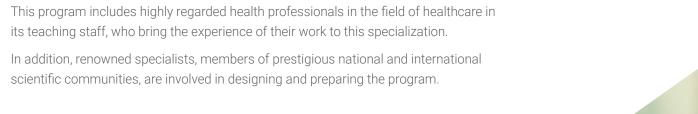
Objectives | 11 tech

- Describe the use of each medication specific to this specialty.
- Differentiate tracheal stenosis with and without prosthetic implant, as well as the rest of prosthetic implants, and know their peculiarities.
- Explain the correct preparation and handling of the material to perform a rigid bronchoscopy.
- Explain the handling of mechanical and chemical pleurodesis.
- Prepare and describe the correct functioning of the thoracic drainage system.
- Differentiating between open and minimally invasive surgeries.
- Correctly prepare and label intraoperative and post-procedure specimens.
- Justify the need to treat a pathology with thoracic surgery.
- Describe the VATS technique.
- Differentiate between the clinical manifestations of each pathology.
- Differentiate between segmentectomy and lobectomy and know when and how to proceed in each case.
- Identify and manage the symptoms for programmed and emergency interventions early on.
- Anticipate which material is likely to be used in each surgery.
- Know the proper use and maintenance of different optical fibers used in surgery.
- Reorganize human resources in the surgical area.
- Set up an instrument table suitable for the surgery to be performed.
- Apply surgical protection and extra measures to ensure patient safety.
- Anticipate possible surgical and anesthetic complications that could arise during the surgery and the transfer of the patient afterwards.
- Assist in the surgical technique by helping with the necessary equipment.
- Transmit the necessary information to the ward nurse who will continue caring for the patient after surgery.
- Relay the necessary information to the Post-Surgical Recovery services nurse and/or ward nurse for continuity of care.
- List the nursing interventions to carry out.
- Confirm the results to be obtained after surgery.

- Have knowledge of anesthesia in thoracic surgery: systematics, pharmacology, devices likely to be used.
- Learn the surgical technique in limb amputation and handle the subsequent identification, management and transport.
- Acquire the necessary skills to perform peripheral access surgeries (vascular angioplasties, stenting, thrombectomies...), and have all the necessary equipment in case an emergency laparotomy is required.
- Describe the stents and stent grafts required in most of the interventions, as well as the specific material for these surgeries.
- Become highly qualified in microsurgery, a technique necessary for the performance of any type of by-pass, and in the handling of the different vascular grafts.
- Explain the technique of a percutaneous injection of ultrasound-guided thrombin for pseudoaneurysm closure.
- Master the technique of arterio-venous fistula repair and subsequent care.
- Learn the different techniques for solving venous insufficiency.
- Efficiently collaborate with the rest of the team in moments of vital urgency, which are very often experienced by patients with vascular pathology.



Course Management









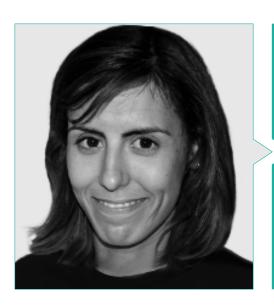
tech 14 | Course Management

Management



Guzmán Almagro, María Isabel

- Diploma in Nursing
- Master's Degree in Social Gerontology: Longevity, Health and Quality of Life
- University Expert in Accidents and Emergencies from the Complutense University of Madrid.
- Professional Master's Degree in Comprehensive Nursing Care in Critical and Emergency Situations in Adults
- Surgical Block Nurse at the La Paz University Hospital. Madrid, Spain



Bárzano Saiz, Mª Eestela

- Diploma in Nursing
- Diploma in Physiotherapy
- Master's Degree in Counselling by the San Camilo Health Humanization Center.
- Operating room nurse with several years of experience in Orthopaedic and Traumatological Surgery, Plastic Surgery and General Surgery operating rooms at University Hospital La Paz. Madrid, Spain

Management

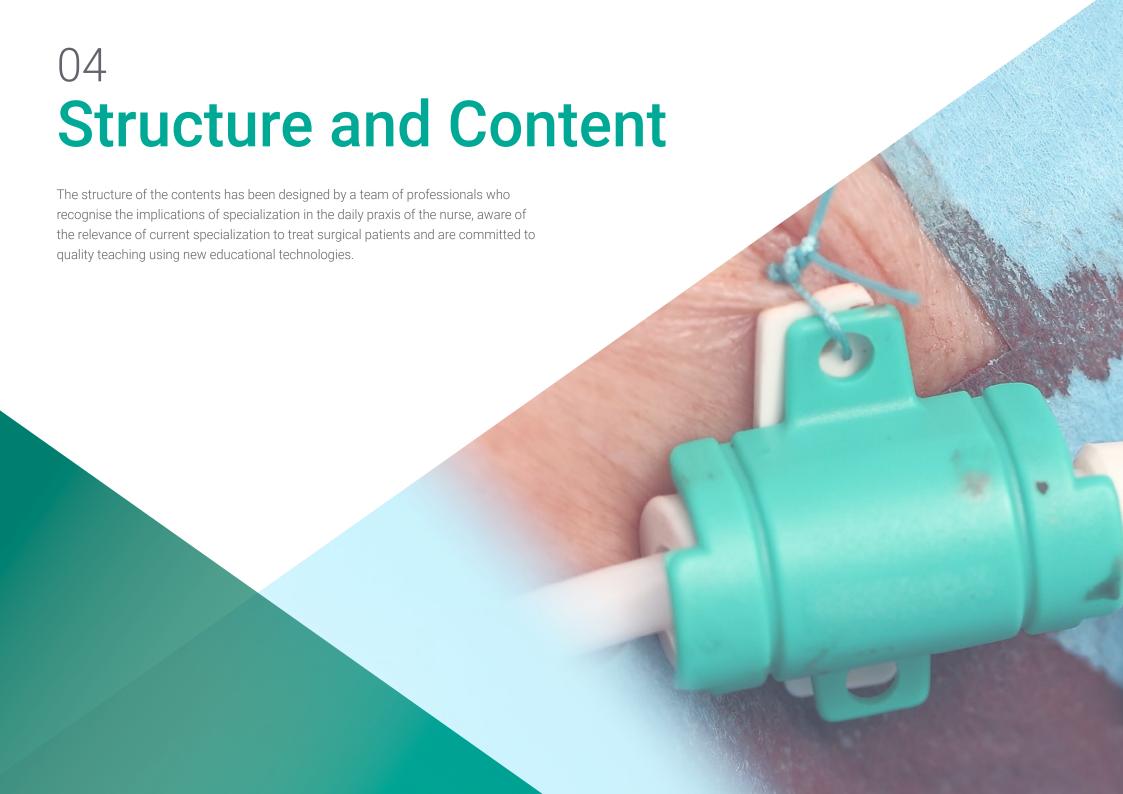


Alba López, Alicia

- Diploma in Nursing
- Operating room nurse with several years of experience in Orthopaedic and Traumatological Surgery, Plastic Surgery and General Surgery operating rooms at University Hospital La Paz. Madrid, Spain

Professors

Córdoba, Jose Angel García Enciso, Mª Carmen García, Marta Hernandez, María López Quesada, Teresa Rodríguez, Mercedes





tech 18 | Structure and Content

Module 1. Perioperative Surgical Process

- 1.1. Definition Perioperative Surgical Process.
 - 1.1.1. Perioperative Nurse.
 - 1.1.2. Importance of Information Between the Patient/ Family and the Healthcare Team.
 - 1.1.3. Control Anxiety in a Patient.
- 1.2. Pre-Surgery Surgical Process.
 - 1.2.1. Recovery Room.
 - 1.2.2. Preoperative Nursing Interventions.
 - 1.2.2.1. Welcoming the Patient/ Family.
 - 1.2.2.2. Preparing the Patient for Surgery.
 - 1.2.2.3. Nursing Measures in the Immediate Preoperative Period.
 - 1.2.2.4. Transferring the Patient to the Operating Room.
- 1.3. Intraoperative Surgical Process.
 - 1.3.1. Surgical Area.
 - 1.3.2. Different Anesthetic Techniques.
 - 1.3.3. Most Commonly Used Drugs.
 - 1.3.4. Nursing Interventions Before the Patient enters the Operating Room.
 - 1.3.4.1. Welcoming the Patient in the Pre-Anesthesia Room (Before the Operating Room).
 - 1.3.4.2. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse
 - 1.3.5. Nursing Interventions in the Operating Room.
 - 1.3.5.1. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse.
 - 1.3.6. Potential Intraoperative Complications.
 - 1.3.7. Transfer of the Patient to the Recovery Unit.
- 1.4. Post-Surgery Surgical Process.
 - 1.4.1. Concept of Recovery Unit.
 - 1.4.2. Nursing Interventions.
 - 1.4.2.1. In the immediate postoperative period.
 - 1.4.2.2. In the Postoperative Period.
 - 1.4.3. Potential Post-Operative Complications.
 - 1.4.4. Transfer of the Patient to the Ward Unit.
 - 1.4.5. Postoperative Care in the Ward Unit.





Structure and Content | 19 tech

Module 2. Cardiac Surgery

- 2.1. Particularities in Cardiac Surgery.
 - 2.1.1. Specific Aspects to Consider in Each Surgery.
 - 2.1.1.1. Anatomical Review in the Different Intervention Areas.
 - 2.1.1.2. Apparatus, Expendable Material and Instruments.
 - 2.1.1.3. Anesthesia of Choice.
 - 2.1.1.4. Patient Positioning.
 - 2.1.1.5. Surgical Care of the Patient
 - 2.1.2. Specific Nursing specialization in Heart Surgery.
- 2.2. Anatomophysiology.
 - 2.2.1. Cardiac Anatomy.
 - 2.2.1.1. Heart Wall.
 - 2.2.1.2. Chambers.
 - 2.2.1.3. Valves.
 - 2.2.1.4. Cardiac Vascularization.
 - 2.2.2. Cardiac Physiology.
 - 2.2.2.1. Cardiac Cycle. Major and Minor Circulation.
 - 2.2.2.2. Fundamental Aspects of the Myocardial Cell.
 - 2.2.2.3. Cardiac Conduction System.
 - 2.2.2.4. Mechanism of Cardiac Contraction.
- 2.3. Valve Surgeries.
 - 2.3.1. Valvular Substitution and Reparation.
 - 2.3.1.1. Aortic Valve
 - 2.3.1.2. Mitral Valve
 - 2.3.1.3. Mitral Plasty.
 - 2.3.1.4. Tricuspid Annuloplasty.
- 2.4. Coronary Surgeries.
 - 2.4.1. Obstructive Coronary Artery Disease.
 - 2.4.2. AMI.
 - 2.4.3. Unstable Angina.
 - 2.4.4. Coronary Artery Bypass.

tech 20 | Structure and Content

- 2.5. Reconstructive Surgeries for Heart Rhythm Disturbances.
 - 2.5.1. Atrial-Ventricular Arrhythmias.
 - 2.5.2. Lethal Atrial-Ventricular Arrhythmias.
 - 2.5.3. Implantation or Removal of Pacemakers.
 - 2.5.4. ICD Implantation/Removal.
 - 2.5.5. Dysfunction and/or Infection of Pacemaker or Automatic Implantable Defibrillator System.
- 2.6. Surgery in Adults with Congenital Problems.
 - 2.6.1. Pulmonary Valve Failure.
 - 2.6.2. Bicuspid Aortic Valve.
- 2.7. Other Surgeries.
 - 2.7.1. Aneurysm and/or Dissection of Ascending Aorta with Aortic Root Dilatation (Involvement of Coronary Ostium) Without Diseased Aortic Valve.
 - 2.7.2. Aneurysm and/or Dissection of Ascending Aorta with Aortic Root Dilatation (Involvement of Coronary Ostium) With Diseased Aortic Valve.
 - 2.7.3. Endocarditis with Aortic and Mitral Valve Involvement.
 - 2.7.4. Ascending Aorta Aneurysm.
 - 2.7.5. Chronic Pericardial Inflammation.
 - 2.7.6. Interatrial or Interventricular Communication.
 - 2.7.7. Pump Failure/Cardiogenic Shock.
 - 2.7.8. Interventions in the Aorta.
 - 2.7.8.1. David Procedure.
 - 2.7.8.2. Mitral-Aortic David Procedure.
 - 2.7.8.3. Bentall Procedure.
 - 2.7.8.4. Ascending Aorta Replacement.
- 2.8. Emergency Interventions.
 - 2.8.1. Cardiac Rupture.
 - 2.8.2. Cardiac Tamponade.
 - 2.8.3. Aorta Dissection.
 - 2.8.4. Pericardiectomy.
- 2.9. Balloon Counterpulsation and Ventricular Assist Device Management.
- 2.10. Heart-Lung Machine.

Module 3. Thoracic surgery

- 3.1. Particularities in Thoracic Surgery.
 - 3.1.1. Structure and Organisation of the Neurosurgery Operating Room.
 - 3.1.2. Equipment and Materials.
 - 3.1.2.1. Expendable Material.
 - 3.1.2.2. Non-Expendable Material.
 - 3.1.2.2.1. Specific Instruments: Tools, Separators.
 - 3.1.2.2.2. Appliances.
 - 3.1.3. Specific Sutures.
 - 3.1.4. Specific Drugs.
- 3.2. Anatomophysiology.
 - 3.2.1. Upper Respiratory Tract:
 - 3.2.1.1. Nasal Fossa.
 - 3.2.1.2. Pharynx.
 - 3.2.1.3. Larynx.
 - 3.2.2. Lower Respiratory Tract.
 - 3.2.2.1. Trachea.
 - 3.2.2.2. Lungs.
 - 3.2.2.3. Muscles of the Thoracoabdominal Wall.
 - 3.2.2.4. Vessels and Nerves.
 - 3.2.2.5. Thoracic Cavities.
 - 3.2.3. Respiratory Mechanism.
 - 3.2.4. Respiratory Functional Examination Concepts.
 - 3.2.5. Gas Pressures Exchange Assessments.
- 3.3. Tracheal Surgeries.
 - 3.3.1. Rigid Bronchoscopy (with/without Prosthetic Implant) + Tracheal Canal Dilatation.
 - 3.3.2. Open Surgery with Tumor Resection and/or Secondary Tracheal Anastomosis

- 3.4. Pulmonary Surgery (Open and Closed).
 - 3.4.1. Extirpation of Bullae and/or Pleurectomy With/Without Mechanical or Chemical Pleurodesis.
 - 3.4.2. Open Segmentectomy.
 - 3.4.3. Segmentectomy by Videothoracoscopy.
 - 3.4.4. Open Lobectomy (Thoracotomy).
 - 3.4.5. Closed Lobectomy (by VATS or Minimally Invasive Surgery).
- 3.5. Other Surgeries.
 - 3.5.1. Bilateral Sympathectomy by Videothoracoscopy.
 - 3.5.2. Thoracic Cavity Correction and Osteosynthesis.
 - 3.5.3. Chest Tube Insertion.

Module 4. Vascular Surgery

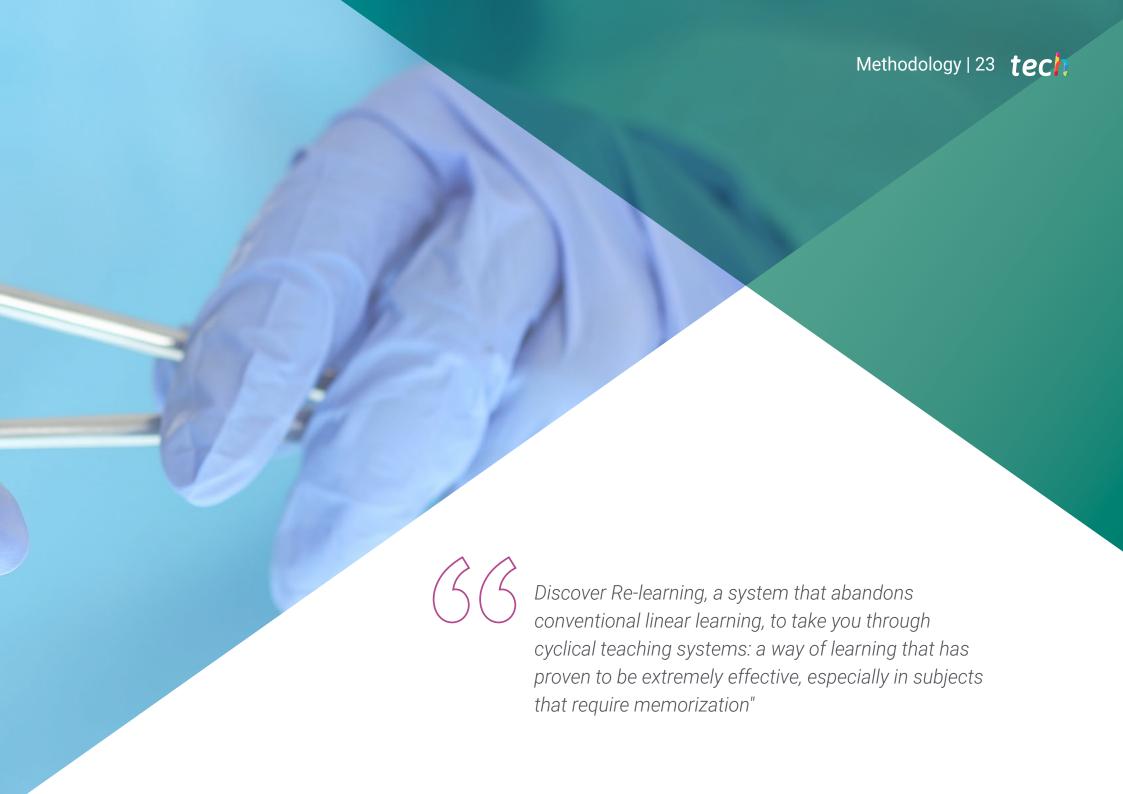
- 4.1. Arterial Angioplasties (With or Without Vascular Stenting).
- 4.2. Vascular Endoprosthesis (thoracic aorta/abdominal aorta).
- 4.3. Carotid Endarterectomy
- 4.4. Bypass (With Prosthesis, With Vein or In Situ).
 - 4.4.1. Carotid Artery.
 - 4.4.2. Axillary-Bifemoral.
 - 4.4.3. Ilio-Femoral.
 - 4.4.4. Femoro-Femoral.
 - 4.4.5. Femoro-Poplíteo.
 - 4.4.6. Femoro-Distal.
 - 4 4 7 Aorto-Bifemoral
- 4.5. Thrombectomy/Embolectomy for Upper or Lower Limb Ischaemia.
 - 4.5.1. Pseudoaneurysm with Ultrasound-Guided Percutaneous Thrombin Injection.
- 4.6. Arterio-Venous Fistula.
 - 4.6.1. Fistula Implantation.
 - 4.6.2. Ligation of Collateral Branches.

- 4.7. Venous Insufficiency-Varicose Veins.
 - 4.7.1. Safenectomy.
 - 4.7.2. Phlebectomy.
 - 4.7.3. Phlebosclerosis.
- 4.8. Amputations.
 - 4.8.1. Supracondilia.
 - 482 Infracondilea
 - 4.8.3. Transmetatarsal.
 - 4.8.4. Phalangeal.
- 4.9. Excision of Vascular Malformations.



A unique, key, and decisive master's degree experience to boost your professional development"





tech 24 | Methodology

At TECH Nursing School we use the Case Method

In a given clinical 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 abundant 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.



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:

- 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.





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 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.



Methodology | 27 tech

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 175,000 nurses with unprecedented success, in all specialties regardless of from the workload. 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 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.

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.



Nursing Techniques and Procedures on Video

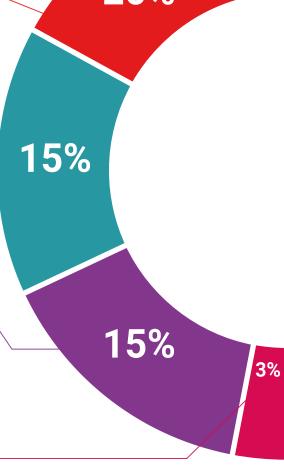
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current nursing procedures and techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many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

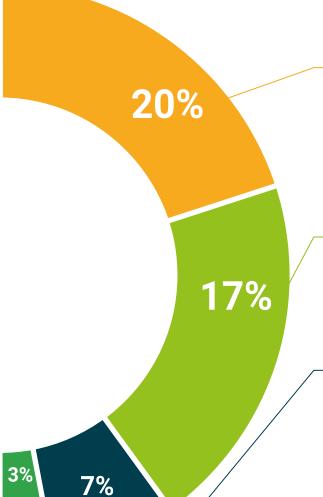
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".





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 & Retesting

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 future difficult 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.







tech 32 | Certificate

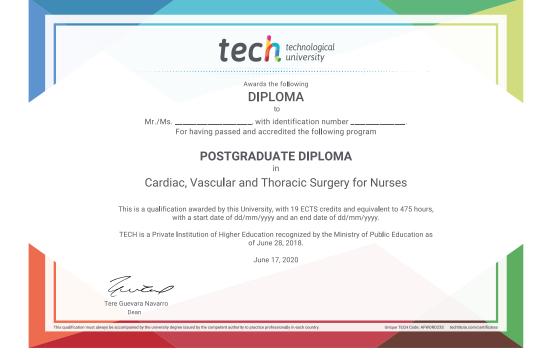
This **Postgraduate Diploma in Cardiac, Vascular and Thoracic Surgery for Nurses** contains the most complete and up-to-date scientific program on the market.

After passing the assessments, students receive their **Postgraduate Diploma** issued by **TECH Technological University** posted by certified mail.

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

Title: Postgraduate Diploma in Cardiac, Vascular and Thoracic Surgery for Nurses

Official Number of Hours: 475



^{*}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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education information tutors
guarantee accreditation teaching
institutions technology learning



Postgraduate Diploma

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