

# Postgraduate Diploma

Trauma Nursing: Spine Pathology and  
Upper and Lower Limb Pathology



## Postgraduate Diploma Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology

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

Website: [www.techtute.com/in/nursing/postgraduate-diploma/postgraduate-diploma-trauma-nursing-spine-pathology-upper-limb-pathology](http://www.techtute.com/in/nursing/postgraduate-diploma/postgraduate-diploma-trauma-nursing-spine-pathology-upper-limb-pathology)

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01

# Introduction

Specialize in Spine Pathology and Upper and Lower Limb Pathology in Trauma Nursing, with this high-level program taught by professionals with extensive experience in the sector.

A unique opportunity to stand out in a sector with a high demand for professionals.





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*Improve your knowledge in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology through this program, where you will find the best teaching material with real clinical cases”*

During the nursing degree there is no broad and specific training in traumatology, as is the case with other specialties such as mental health or maternal and pediatrics. In relation to the discipline of traumatology, only slight glimpses are offered and, if hospital internships are not performed in a traumatology department, the nurse finishes his or her studies without the necessary knowledge to work in that department.

The idea of this program arises precisely from this lack of adequate training, so that nursing practitioners can specialize in this area and work with the guarantee that what they are doing is right. The main objective of this program is to equip nurses with the best knowledge and practices in the trauma field.

The program consists of several modules, divided into different areas, with the most up-to-date advances on each topic, videos and different resources for the student to acquire the necessary training.

It provides content from primary care to specialized care, including the emergency room, the hospitalization unit and the operating room; (the least known and most complex area) that will be approached in a holistic manner and with the collaboration of different specialists. It includes videos and clinical case studies.

The program is designed to provide online specialization that, in turn, provides the student with all the theoretical and practical knowledge presented through high quality multimedia content, analysis of clinical cases prepared by experts, master classes and video techniques that allow the exchange of knowledge and experience, maintain and update the educational level of its members, create protocols for action and disseminate the most important developments in the field. With this online program, students can organize their time and pace of learning, adapting it to their schedules, in addition to being able to access the contents from any computer or mobile device.

This **Postgraduate Diploma in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of clinical cases presented by experts in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology
- ♦ Its graphic, schematic and practical contents are designed to provide scientific and useful information on those disciplines that are essential for professional practice
- ♦ New developments on care and intervention in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Algorithm-based interactive learning system for decision-making in the situations that are presented to the student
- ♦ With special emphasis on evidence-based medicine and research methodologies in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology
- ♦ 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

“Update your knowledge through the program in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology”

“

*This Postgraduate Diploma is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Traumatology, you will obtain a qualification endorsed by TECH Technological University”*

It includes, in its teaching staff, professionals belonging to the field of Traumatology, who bring to this training the experience of their work, in addition to recognized specialists belonging to scientific societies of reference.

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 designed to train in real situations.

The design of this program is based on Problem-Based Learning, through which the nursing professional must try to solve the different professional practice situations that arise throughout the program. For this reason, they will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of Traumatology with extensive teaching experience.

*Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma.*

*Make the most of this opportunity to learn about the latest advances in Trauma Nursing from professionals with extensive experience in the sector.*



02

# Objectives

The program in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology is aimed at improving the nurse's performance in the care of patients with traumatic pathology.





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*This program is designed for you to update your knowledge in Traumatology, with the use of the latest educational technology, to contribute with quality and safety to the decision-making, care, monitoring and accompaniment of the patient with Traumatic Pathology"*



## General Objectives

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- Provide the nurse practitioner with more precise theoretical and practical knowledge that will help them in their daily practice in the traumatology service and at all times when patients require their attention in this specialty
- Describe the role of nursing in each of the trauma services
- Perfect the techniques of trauma nursing



*Make the most of this opportunity and take the step to get up to date with the latest developments in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology”*





## Specific Objectives

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### **Module 1. Trauma and Orthopedic Nursing in Spine Pathology**

- ◆ Provide state-of-the-art knowledge of spine pathology
- ◆ Manage the different techniques for the assessment and diagnosis of patients with spine pathology
- ◆ Discern and correctly apply the different types of treatment in spine pathology; surgical, conservative and rehabilitative

### **Module 2. Trauma and Orthopedic Nursing in the Pathology of the Upper Limb**

- ◆ Provide up-to-date knowledge of upper limb pathology
- ◆ Manage the different techniques for the assessment and diagnosis of patients with shoulder, elbow and hand pathology
- ◆ Discern and correctly apply the different types of treatment in upper limb pathology; surgical, conservative and rehabilitative

### **Module 3. Trauma and Orthopedic Nursing in Lower Limb Pathology**

- ◆ Provide up-to-date knowledge of lower limb pathology
- ◆ Manage the different techniques for the assessment and diagnosis of patients with hip, knee and foot pathology
- ◆ Discern and correctly apply the different types of treatment in lower limb pathology; surgical, conservative and rehabilitative

03

# Course Management

The program includes in its teaching staff leading specialists in Trauma Nursing who bring to this training the experience of their work. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





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*Learn from leading experts in the field,  
the latest advances in the procedures  
in Trauma Nursing: Spine Pathology  
and Upper and Lower Limb Pathology”*

## Management



### Ms. Álvarez Calvo, Alicia

- Diploma in Nursing
- Diploma in Public Health
- Master's Degree in Clinical Process Management and University Expert in Emergencies
- Associate Professor of Surgical Conditions in Traumatology of the Degree in Physiotherapy. UEMC
- Collaborator in practical training for the UVA nursing degree
- Member of the Spanish Association of Trauma Nursing and the Spanish Association of Vascular and Injury Nursing
- Head Nurse of the Traumatology and Spine Operating Room of the Hospital of Valladolid



## Professors

### **Dr. León Andrino, Alejandro Ángel**

- ♦ Specialist in Orthopedic Surgery in private practice at the Campo Grande Hospital, Valladolid
- ♦ Degree in Medicine from the University of Valladolid
- ♦ PhD in "Research in Surgery" from the University of Valladolid

### **Mr. Álvarez Brewers, Héctor**

- ♦ Physiotherapist at Medrano Clinic, Aguilar de Campoo
- ♦ Diploma in Physiotherapy at the Alfonso X el Sabio University

### **Ms. Santiago Maniega, Silvia**

- ♦ Degree in Medicine from the University of Salamanca
- ♦ Member of SECOT (Spanish Society of Orthopedic Surgery and Traumatology)
- ♦ Member of GEER (Society for the Study of Spine Diseases)
- ♦ Member of AEA (Spanish Association of Arthroscopy)

### **Ms. Nicolas Sacristán, Teresa**

- ♦ University Diploma in Nursing from the Faculty of Health Sciences of Valladolid
- ♦ Nurse Resident of Mental Health at the Valladolid Clinical University Hospital
- ♦ Pedagogical Training Course in the specialty of Health Services (PHC) at the University of Valladolid

04

# Structure and Content

The structure of the contents has been designed by a team of professionals from leading hospitals and universities, aware of the relevance of current specialization in order to offer quality care to patients with trauma problems, and committed to quality teaching through new educational technologies.





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*This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market"*

## Module 1. Trauma and Orthopedic Nursing in Spine Pathology

- 1.1. Anatomic-Physiologic Memory with the Biomechanics of the Spine
- 1.2. Imaging and Diagnostic Techniques in the Spine
- 1.3. Traumatic Spine Pathology
  - 1.3.1. General Information on Vertebral Fractures
  - 1.3.2. Traumatic Vertebral Instability
    - 1.3.2.1. Spinal Cord Injury. Evaluation and Management
- 1.4. Pathology of Disk Disorders and Degenerative Disc Disease
  - 1.4.1. Herniated Disc. Adjacent Disc Syndrome
  - 1.4.2. Osteoporotic Vertebral Fractures
  - 1.4.3. Canal Stenosis
  - 1.4.4. Ankylosing Spondylitis
- 1.5. Deformities
  - 1.5.1. Scoliosis
  - 1.5.2. Spondylolisthesis
  - 1.5.3. Hyperkyphosis
  - 1.5.4. Hyperlordosis
- 1.6. Infections of the Spine
- 1.7. Rheumatic Spinal Disorders
- 1.8. Surgical Navigation and Neurophysiological Monitoring
- 1.9. Spine Rehabilitation
- 1.10. Conservative Treatment of the Spine

## Module 2. Trauma and Orthopedic Nursing in the Pathology of the Upper Limb

- 2.1. Anatomical-Physiological Refresher Course
- 2.2. Imaging and Diagnostic Techniques in the Upper Limb
- 2.3. Traumatic Pathology of the Scapulohumeral Girdle
  - 2.3.1. Clavicle Fractures and Dislocations
  - 2.3.2. Humeral Fractures
  - 2.3.3. Rotator Cuff Tears and SLAP Tear
- 2.4. Traumatic Pathology of the Elbow and Forearm
  - 2.4.1. Fractures of the Olecranon and Radial Head
  - 2.4.2. Post-Traumatic Stiffness
- 2.5. Traumatic Pathology of the Hand and Wrist
  - 2.5.1. Metacarpal Fractures
- 2.6. Non-Traumatic Pathology of the Scapulohumeral Girdle
  - 2.6.1. Glenohumeral Arthrosis
  - 2.6.2. Subacromial Syndrome
  - 2.6.3. Shoulder Instability
- 2.7. Non-Traumatic Pathology of the Elbow and Forearm
  - 2.7.1. Arthrosis
- 2.8. Non-Traumatic Pathology of the Hand
- 2.9. Physiotherapy and Rehabilitation of the Upper Limbs
- 2.10. Nursing Care of the Patient with Upper Limb Injuries



### Module 3. Trauma and Orthopedic Nursing in Lower Limb Pathology

- 3.1. Anatomical-Physiological Refresher Course
- 3.2. Imaging and Diagnostic Techniques in the Lower Limb
- 3.3. Traumatic Pelvis and Hip Pathology
  - 3.3.1. Pelvis and Hip Fractures
  - 3.3.2. Hip Dislocation
- 3.4. Traumatic Pathology of the Lower Limbs
  - 3.4.1. Fractures of the Femur, Tibia and Fibula
  - 3.4.2. Ankle and Foot Fractures
- 3.5. Non-Traumatic Pathology of the Lower Limbs
  - 3.5.1. Coxarthrosis
  - 3.5.2. Gonarthrosis
- 3.6. Pathology of the Extensor Apparatus
  - 3.6.1. Anterior Cruciate Ligament
  - 3.6.2. Posterior Cruciate Ligament
- 3.7. Pathology of the Ankle
- 3.8. Pathology of the Foot
- 3.9. Physiotherapy and Rehabilitation of the Lower Limbs
- 3.10. Nursing Care in Pathologies of the Lower Limbs

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

# 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 Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology 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”*

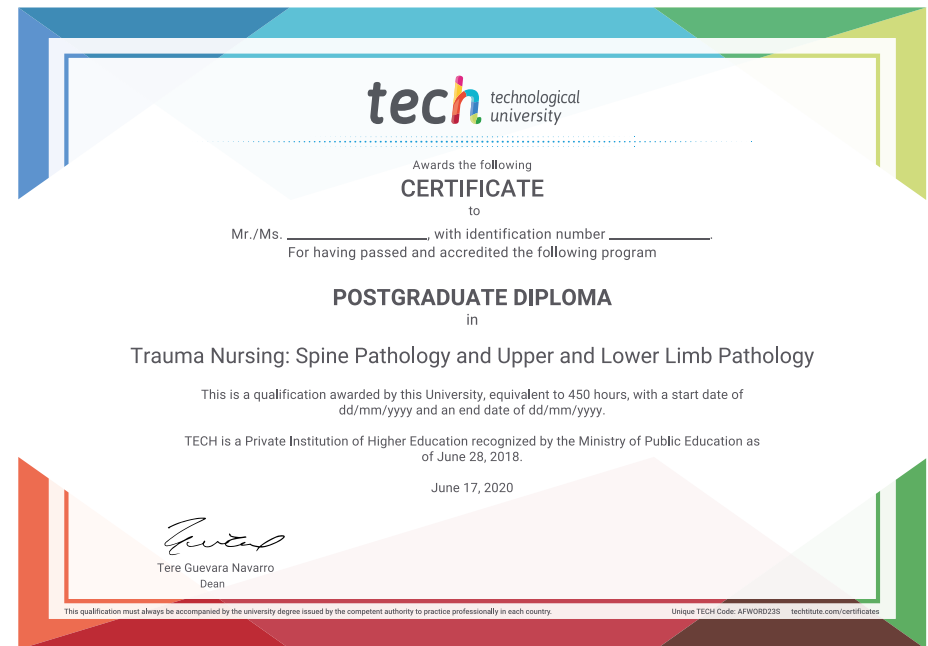
This **Postgraduate Diploma in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Trauma Nursing: Spine Pathology and Upper and Lower Limb Pathology**

Official N° of Hours: **450 hours**.



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

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



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