



Trauma Nursing: Diagnosis and Care in Traumatic and Non-Traumatic Pathology

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-trauma-nursing-diagnosis-care-traumatic-non-traumatic-pathology

# Index

 $\begin{array}{c|c} 01 & 02 \\ \hline & \\ \hline \\ 03 & 04 & 05 \\ \hline \\ \hline \\ Course Management & Structure and Content \\ \hline \\ \\ \hline \\ p. 12 & p. 16 \\ \hline \end{array}$ 

06 Certificate





# tech 06 | Introduction

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.

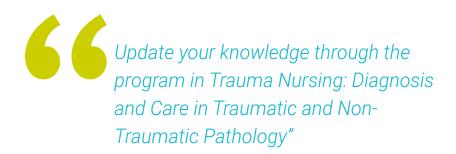
The program consists of several modules, divided into different areas, with the most up-to-date advances on each topic, videos and different resources for the student to acquire the necessary training.

It provides content from primary care to specialized care, including the emergency room, the hospitalization unit and the operating room; he 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 an online specialization that 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: Diagnosis and Care in Traumatic and Non-Traumatic 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:
   Diagnosis and Care in Traumatic and Non-Traumatic 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 in Intervention in Trauma Nursing: Diagnosis and Care in Traumatic and Non-Traumatic 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: Diagnosis and Care in Traumatic and Non-Traumatic 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



# Introduction | 07 tech



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"

The teaching staff includes professionals from the field of Trauma Nursing, who bring their experience to this program, as well as renowned specialists from leading scientific societies.

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.







# tech 10 | Objectives



# **General Objectives**

- 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: Diagnosis and Care in Traumatic and Non-Traumatic Pathology"







# **Specific Objectives**

#### Module 1. Assessment and Diagnosis of the Trauma Patient for Nursing

- In-depth knowledge of the different examination and assessment techniques in traumatology
- Manage the different methods of interview and diagnosis in trauma nusing
- Assess patients with musculoskeletal and neurological problems

#### Module 2. Nursing Care in Traumatic Pathology

- \* Acquire specific knowledge about traumatic pathology, fractures, their treatments and complications
- Specialize in all nursing interventions in trauma emergencies

#### Module 3. Nursing Care in Non-Traumatic Pathology

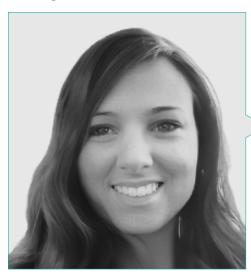
- Obtain an in-depth knowledge of osteoporosis and osteoarthritis, the most prevalent non-traumatic diseases
- Manage the nursing process in the patient with non-traumatic pathology





# tech 14 | Course Management

#### 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

#### 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)

#### D. Álvarez Brewers, Héctor

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

#### 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



# Course management | 15 tech

#### Ms. García Rodríguez, Laura

- Diploma in Nursing from the University School of Nursing and Physiotherapy of the University of Salamanca
- Obstetrics and Gynecology Specialty (Midwife) at the UDENFOBG of the Basque Health Service
- Expert in Assisted Reproduction by the Rey Juan Carlos University and SEF

#### Ms. Cabero García, Begoña

- University Expert in Care and Cure of Chronic Wounds by the University of Cantabria
- Degree in Nursing from the University of León

#### D. Mate Espeso, Adriano

- Supervisor and Head of Nursing Unit of the Pediatric Emergency Unit at the Clinical University Hospital of Valladolid
- Degree in Nursing from the University of León
- Master's Degree in Health Services Management at the University of León
- \* Master's Degree in Social and Health Sciences Research at the University of León





# tech 18 | Structure and Content

#### Module 1. Assessment and Diagnosis of the Trauma Patient for Nursing

- 1.1. Musculoskeletal Examination for Nursing
- 1.2. Medical History and Personal Interview
  - 1.2.1. Medical History
  - 1.2.2. Key Questions: Start, Duration, Frequency and Location
  - 1.2.3. Main Symptoms in Traumatology 1.2.3.1. Inflammatory Process
- 1.3. Objective Examination for Nursing
  - 1.3.1. Inspection of Body Alignment and Gait
  - 1.3.2. Muscle Tendon Palpation
  - 1.3.3. Examination of Reflexes
  - 1.3.4. Active, Passive and Resisted Mobility
- 1.4. Nursing Assessment and Examination of the Scapulohumeral Girdle
  - 1.4.1. Inspection
  - 1.4.2. Mobility Assessment (Active, Passive and Resisted)
  - 1.4.3. Palpitation
  - 1.4.4. Specific Diagnostic Tests
- 1.5. Nursing Assessment and Examination of the Elbow, Wrist and Hand
  - 1.5.1. Inspection
  - 1.5.2. Mobility (Active, Passive and Resisted)
  - 1.5.3. Palpitation
  - 1.5.4. Specific Diagnostic Tests
- 1.6. Cervical and Thoracic Spine Assessment and Examination in Nursing
  - 1.6.1. Inspection
  - 1.6.2. Mobility (Active, Passive and Resisted)
  - 1.6.3. Palpitation
  - 1.6.4. Specific Diagnostic Tests
- 1.7. Assessment and Diagnosis of the Lumbar Spine and Pelvis for Nursing
  - 1.7.1. Inspection
  - 1.7.2. Mobility (Active, Passive and Resisted)
  - 1.7.3. Palpitation
  - 1.7.4. Specific Diagnostic Tests
- 1.8. Hip Assessment and Diagnosis for Nursing

- 1.8.1. Inspection
- 1.8.2. Mobility (Active, Passive and Resisted)
- 1.8.3. Palpitation
- 1.8.4. Specific Diagnostic Tests
- 1.9. Nursing Assessment and Examination of the Knee, Ankle and Foot
  - 1.9.1. Inspection
  - 1.9.2. Mobility (Active, Passive and Resisted)
  - 1.9.3. Palpitation
  - 1.9.4. Specific Diagnostic Tests
- 1.10. Neurological Examination

#### Module 2. Nursing Care in Traumatic Pathology

- 2.1. Cutaneous and Musculoskeletal Traumas
  - 2.1.1. Contusions and Trauma
  - 2.1.2. Contusions and Injuries
  - 2.1.3. Characterization of Scarring
  - 2.1.4. Nursing Care in Different Wounds
- 2.2. Sprains and Dislocations
  - 2.2.1. Diagnosis and Classification
  - 2.2.2. Treatment Principles
  - 2.2.3. Main Complications
- 2.3. Tendon Ruptures
  - 2.3.1. Diagnosis and Classification
  - 2.3.2. Treatment Principles
  - 2.3.3. Main Complications
- 2.4. Amputations
- 2.5. Burns
  - 2.5.1. Classification
  - 2.5.2. Treatment and Complications
  - 2.5.3. Nursing Care of Burns

- 2.6. Bone Trauma. Fractures in Adults
  - 2.6.1. Diagnosis and Classification
  - 2.6.2. Treatment Principles
  - 2.6.3. Main Complications
- 2.7. Bone Trauma. Fractures in Pediatrics
  - 2.7.1. Diagnosis and Classification
  - 2.7.2. Treatment Principles and Complications
- 2.8. General Complications of Fractures
  - 2.8.1. Fat Embolism Syndrome
  - 2.8.2. Vascular/Nerve Complications
  - 2.8.3. Thromboembolism
- 2.9. Local Complications of Fractures
  - 2.9.1. Compartment Syndrome
  - 2.9.2. Delayed Consolidation and Vicious Consolidation
  - 2.9.3. Sympathetic Reflex Dystrophy
  - 2.9.4. Alteration of Longitudinal Bone Growth
  - 2.9.5. Avascular Necrosis
  - 2.9.6. Joint Stiffness, Post-Traumatic Osteoarthritis and Periarticular Ossification
- 2.10. Polyfractured and Trauma Patient
  - 2.10.1. Severe Trauma Assessment
  - 2.10.2. Post-Traumatic Shock (Hypovolemic, Neurogenic, Septic, Cardiogenic)
  - 2.10.3 Nursing Care in the Different Types of Shock
- 2.11. Principles of Immobilization
- 2.12. Pharmacological Treatment
  - 2.12.1. Calcium and Vitamin D
  - 2.12.2. Inhibition of Bone Formation. Bisphosphonates. Calcitonin. Raloxifene
  - 2.12.3. Bone Formation. Strontium Ranelate. Teriparatide
- 2.13. Principles of Fracture Rehabilitation

#### Module 3. Nursing Care in Non-Traumatic Pathology

- 3.1. Degenerative Diseases of the Musculoskeletal System
  - 3.1.1. Arthrosis
  - 3.1.2. Arthropathies
- 3.2. Metabolic and Autoimmune Diseases
  - 3.2.1. Osteoporosis and Osteomalacia
  - 3.2.2. Rheumatoid Arthritis
- 3.3. Mobility Limitations, Stiffness and Ankylosis
- 3.4. Neurological Lesions
  - 3.4.1. Peripheral Nerve Injuries
- 3.5. Nerve Compression Injuries
  - 3.5.1. Carpal Tunnel Syndrome
  - 3.5.2. Tarsal Tunnel Syndrome
- 3.6. Infection in Traumatology
  - 3.6.1. Most Frequent Infections in Traumatology
  - 3.6.2. Diagnostic Methods and Classification of Infections
  - 3.6.3. Treatment and Prophylaxis of Infection
  - 3.6.4. Osteomyelitis
  - 3.6.5. Nursing Care in Locomotor System Infections
- 3.7. Pain in Traumatology
  - 3.7.1. Diagnosis and Classification
  - 3.7.2. Treatment Principles
  - 3.7.3. Nursing Care in Pain
- 3.8. Inflammation Processes
  - 3.8.1. Inflammatory Process
  - 3.8.2. Main Treatments
  - 3.8.3. Nursing Care in the Inflammatory Process
- 3.9. Prevention and Health Education in Non-Traumatic Pathologies
- 3.10. Physiotherapy and Rehabilitation in Non-Traumatic Processes



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.

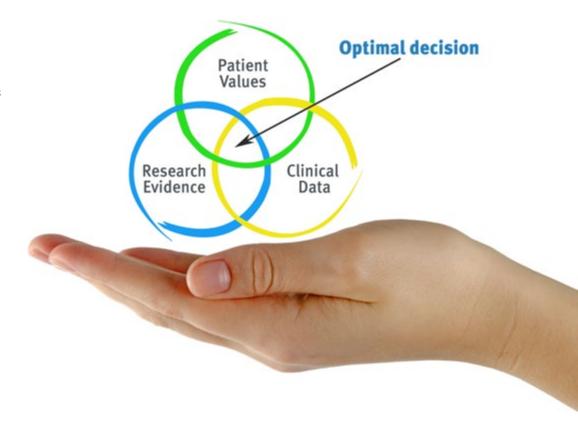


# tech 22 | Methodology

#### 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.



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.
- 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.



# tech 24 | Methodology

#### Relearning Methodology

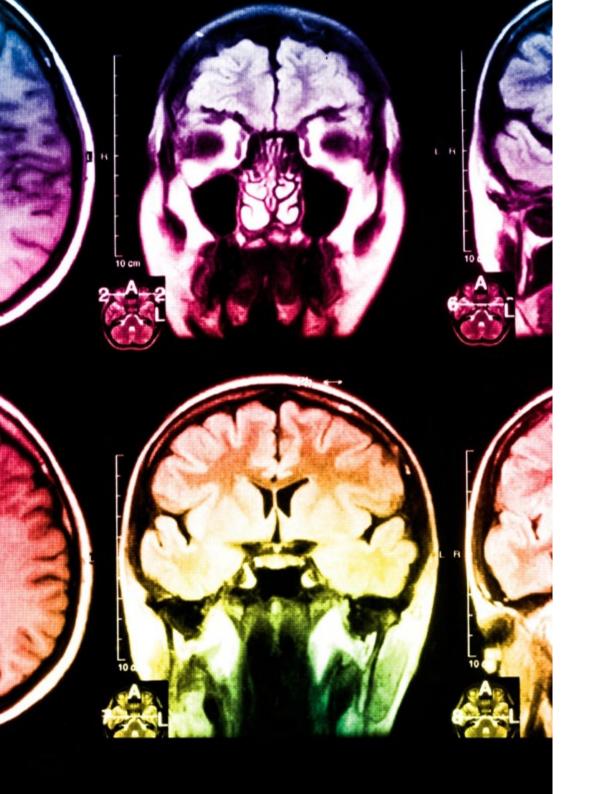
At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

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.





### Methodology | 25 tech

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**

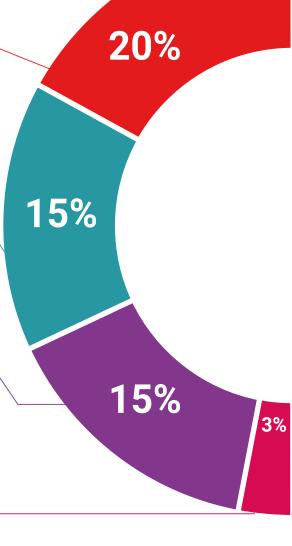
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you 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.

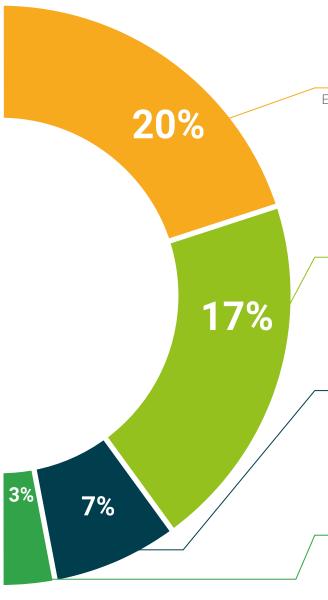
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





#### **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.





#### **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.







# tech 30 | Certificate

This Postgraduate Diploma in Trauma Nursing: Diagnosis and Care in Traumatic and Non-Traumatic 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 diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Diploma in Trauma Nursing: Diagnosis and Care in Traumatic and Non-Traumatic Pathology

Official No of Hours: 450 h.



<sup>\*</sup>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.

health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning



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