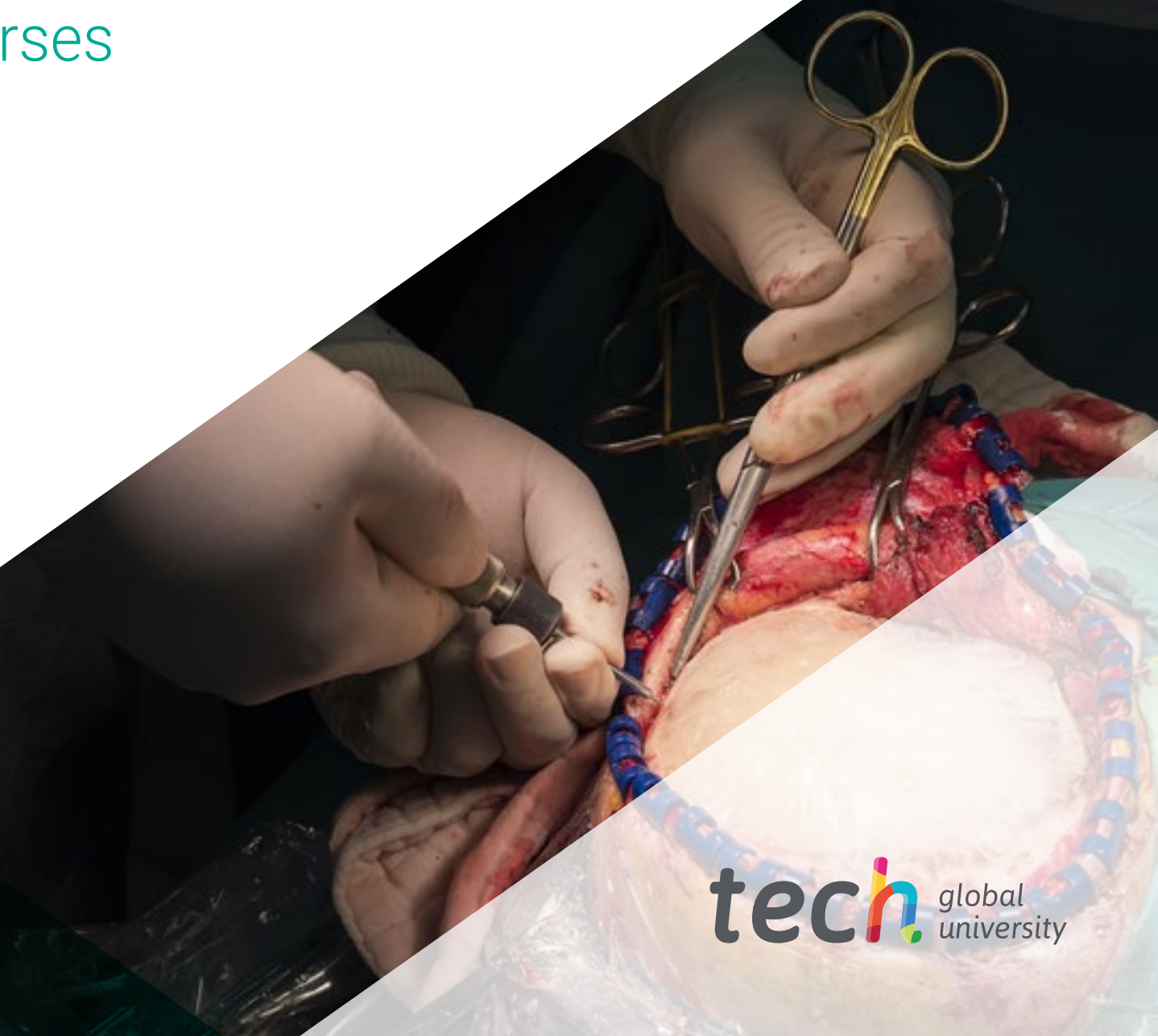


# Postgraduate Certificate Neurosurgery for Nurses





## Postgraduate Certificate Neurosurgery for Nurses

- » Modality: Online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/nursing/postgraduate-certificate/neurosurgery-nurses](http://www.techtute.com/us/nursing/postgraduate-certificate/neurosurgery-nurses)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Study Methodology

---

*p. 20*

06

Certificate

---

*p. 30*

01

# Introduction

Continuous training is nowadays required to achieve professional development and to be fully qualified to face the daily challenges of a constantly changing field such as healthcare. The surgical area is an environment whose characteristics differentiate it from the rest of the services where the majority of nursing professionals habitually develop competencies in their care, management, teaching and research functions. The evolution of techniques and technological advances make it essential for nursing professionals to update their knowledge in order to provide excellent surgical care.





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*This Postgraduate Certificate in Neurosurgery for Nurses contains the most complete and up-to-date scientific program on”*

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. Being institutions aware of this, they demand academic profiles with a training that adapts to the requirements of their job and that are qualified and endorsed for the performance of the same.

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.



*Increase your skills in the approach to Neurosurgery for Nurses through this program"*

This **Postgraduate Certificate in Neurosurgery 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 scientific and practical information on the disciplines that are essential for professional practice.
- ♦ News on Neurosurgery for Nurses.
- ♦ Algorithm-based systematization interactive learning for decision-making in the clinical situations presented throughout the course
- ♦ With special emphasis on evidence-based and surgical nursing research methodologies.
- ♦ Content that is accessible from any fixed or portable device with an Internet connection.
- ♦ All this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.

“

*This course 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 Neurosurgery for Nurses, you will obtain a certificate issued by TECH Technological University”*

Forming part of the teaching staff is a group of professionals in the world of surgical nursing who bring to this training 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.

The design of the program is based on Problem-Based Learning, by means of which the nursing professional must try to solve the different professional practice situations that arise throughout 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 nephrology with extensive teaching experience.

*Increase your decision-making confidence by updating your knowledge with this Postgraduate Certificate in Neurosurgery for Nurses.*

*Don't miss the opportunity to update your knowledge in neurosurgery to improve patient care.*



02

# Objectives

The main objective of the program is the development of both theoretical and practical learning, so that nurses in can master, in a practical and rigorous way, the study of Neurosurgery for Nurses.







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*This refresher program will generate a sense of security when practising nursing, which will help you grow both personally and professionally”*



## General Objectives

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- ◆ 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.
- ◆ Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific training.
- ◆ Encouraging professional development through research and dynamic and up-to-date continuous training.



## Specific Objectives

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- ◆ List the prerequisites of a hospital to be able to house such a specialty.
- ◆ Describe the tasks carried out in each of the collaborating units.
- ◆ Justify the collaboration of these units with the specialty of neurosurgery.
- ◆ Correctly complete administrative documents for subsequent processing.
- ◆ Collect samples for later processing in the necessary sub-department.
- ◆ Differentiate between expendable and non-expendable materials.
- ◆ Describe the surgical material used in each intervention.
- ◆ Control the assembling and use of the specific equipment and devices in the unit.



- ♦ 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 neurological apparatus.
- ♦ Create diagrams showing the relationship between the structures.
- ♦ Describe the use of each medication specific to this specialty.
- ♦ Justify the need to treat a pathology with neurosurgery.
- ♦ Differentiate between the clinical manifestations of each pathology.
- ♦ Identify symptoms for programmed and emergency interventions early on
- ♦ Anticipate which material is likely to be used in each surgery.
- ♦ Identify the sub-departments that are likely to need to intervene in the 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 complications that could arise during the surgery.
- ♦ 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.
- ♦ Prepare the bandage according to each surgery.
- ♦ Identify possible complications during the transfer of the patient.
- ♦ Identify nursing diagnoses to be treated in surgery.
- ♦ List the nursing interventions to carry out.
- ♦ Confirm the results to be obtained after surgery.

“

*Seize the opportunity and take the step to get up-to-date on the latest developments in Neurosurgery for Nurses”*



03

# Course Management

The program's teaching staff includes renowned nursing professionals in neonatal intensive care, who carry out their clinical practice in the leading hospital centers, and who bring the experience of their work to this training. In addition, specialist physicians, members of prestigious national and international scientific communities, flesh out the teaching staff in an interdisciplinary way.





*Learn the latest advances in  
Neurosurgery for Nurses from  
leading professionals"*

## Management



### Dña. Guzmán Almagro, María Isabel

- ♦ Diploma in Nursing.
- ♦ Master's Degree in Social Gerontology: Longevity, Health and Quality of Life.
- ♦ Postgraduate Diploma in Urgent and Emergency Care. 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.



### Dña. Bárzano Saiz, Mª Estela

- ♦ Diploma in Nursing
- ♦ Diploma in Physiotherapy
- ♦ Current 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 of Madrid.
- ♦ Master's Degree in Counselling. San Camilo Health Humanization Center.



### Dña. Alba López, Alicia

- ♦ Diploma in Nursing.
- ♦ More than 10 years of experience as a Surgical Block Nurse in Orthopedic and Traumatologic Surgery, Plastic Surgery and General Surgery operating rooms at "La Paz" Hospital University, Madrid.

04

# Structure and Content

The structure of the contents has been designed by a team of professionals who recognise the implications of preparation in the daily praxis of the nurse, aware of the relevance of current training to treat surgical patients and are committed to quality teaching using new educational technologies.







“

*This Postgraduate Certificate in Neurosurgery for Nurses contains the most complete and up-to-date scientific program on the market”*

## Module 1. Neurosurgery

- 1.1. General aspects
  - 1.1.1. Structure and Organisation of the Neurosurgery Operating Room
  - 1.1.2. Equipment and Material Specific to the Neurosurgery Specialty
    - 1.1.2.1. Expendable Material
    - 1.1.2.2. Non-Expendable Material
      - 1.1.2.2.1. Specific Instruments. Tools, Separators and Headers
      - 1.1.2.2.2. Devices
  - 1.1.3. Specific Sutures
  - 1.1.4. Specific Drugs
- 1.2. Anatomophysiology
  - 1.2.1. Bone Anatomy: Skull and Spinal Column
  - 1.2.2. Structural and Functional Neuroanatomy
  - 1.2.3. From a Structural Point of View
    - 1.2.3.1. Nervous System, Microscopic Anatomy: Neurons and Neuroglia
    - 1.2.3.2. Central Nervous System: Forebrain, Midbrain and Hindbrain
    - 1.2.3.3. Peripheral Nervous System: Spinal Nerves, Nerve Plexuses and Cranial Nerves
    - 1.2.3.4. Sympathetic and Parasympathetic Autonomic Nervous System
  - 1.2.4. From a Structural Point of View
    - 1.2.4.1. Function of the Nervous System
- 1.3. Cranium
  - 1.3.1. Craniotomy
    - 1.3.1.1. Frontal
    - 1.3.1.2. Parietal
    - 1.3.1.3. Temporal
  - 1.3.2. Craniectomy
    - 1.3.2.1. Frontal
    - 1.3.2.2. Parietal
    - 1.3.2.3. Temporal
    - 1.3.2.4. Posterior Fossa
  - 1.3.3. Trepano
    - 1.3.3.1. Ventricular Drainage
    - 1.3.3.2. Evacuation of Hematoma
    - 1.3.3.3. PIC Sensor Implantation



- 1.3.4. Trepan-valve
  - 1.3.4.1. Ventriculo-Peritoneal Drainage
  - 1.3.4.2. Ventriculo-Atrial Drainage
  - 1.3.4.3. Stereotactic Biopsy
  - 1.3.4.4. Endoscopic Transsphenoidal Surgery
  - 1.3.4.5. Ventriculostomy
- 1.4. Spine
  - 1.4.1. Cervical
    - 1.4.1.1. Anterior
      - 1.4.1.1.1. Microdiscectomy With or Without Cervical Cage
      - 1.4.1.1.2. Corpectomy
    - 1.4.1.2. Posterior
      - 1.4.1.2.1. Laminectomy With or Without Arthrodesis
      - 1.4.1.2.2. Hemilaminectomy With or Without Arthrodesis
      - 1.4.1.2.3. Laminoplasty
    - 1.4.1.3. Dorsal: Kaneda
  - 1.4.2. Lumbar
    - 1.4.2.1. Laminectomy With or Without Arthrodesis
    - 1.4.2.2. Hemilaminectomy With or Without Arthrodesis DIE
    - 1.4.2.3. O-Arm Interventions
    - 1.4.2.4. Vertebroplasty
    - 1.4.2.5. Kyphoplasty
- 1.5. Nerves
  - 1.5.1. Decompression
    - 1.5.1.1. Brachial Plexus
    - 1.5.1.2. Median and Radial Nerve. Carpal Tunnel
    - 1.5.1.3. Ulnar Nerve
    - 1.5.1.4. Sciatic Nerve
  - 1.5.2. Nerve Transposition

- 1.6. Functional Neurosurgery
  - 1.6.1. Chronic Pain
    - 1.6.1.1. Spinal Electrodes
    - 1.6.1.2. Cortical Electrodes
    - 1.6.1.3. Deep Electrodes
    - 1.6.1.4. Peripheral Electrodes
    - 1.6.1.5. Spinal Ganglion Electrodes
  - 1.6.2. Spasticity
  - 1.6.3. Deep BrainStimulation



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

05

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

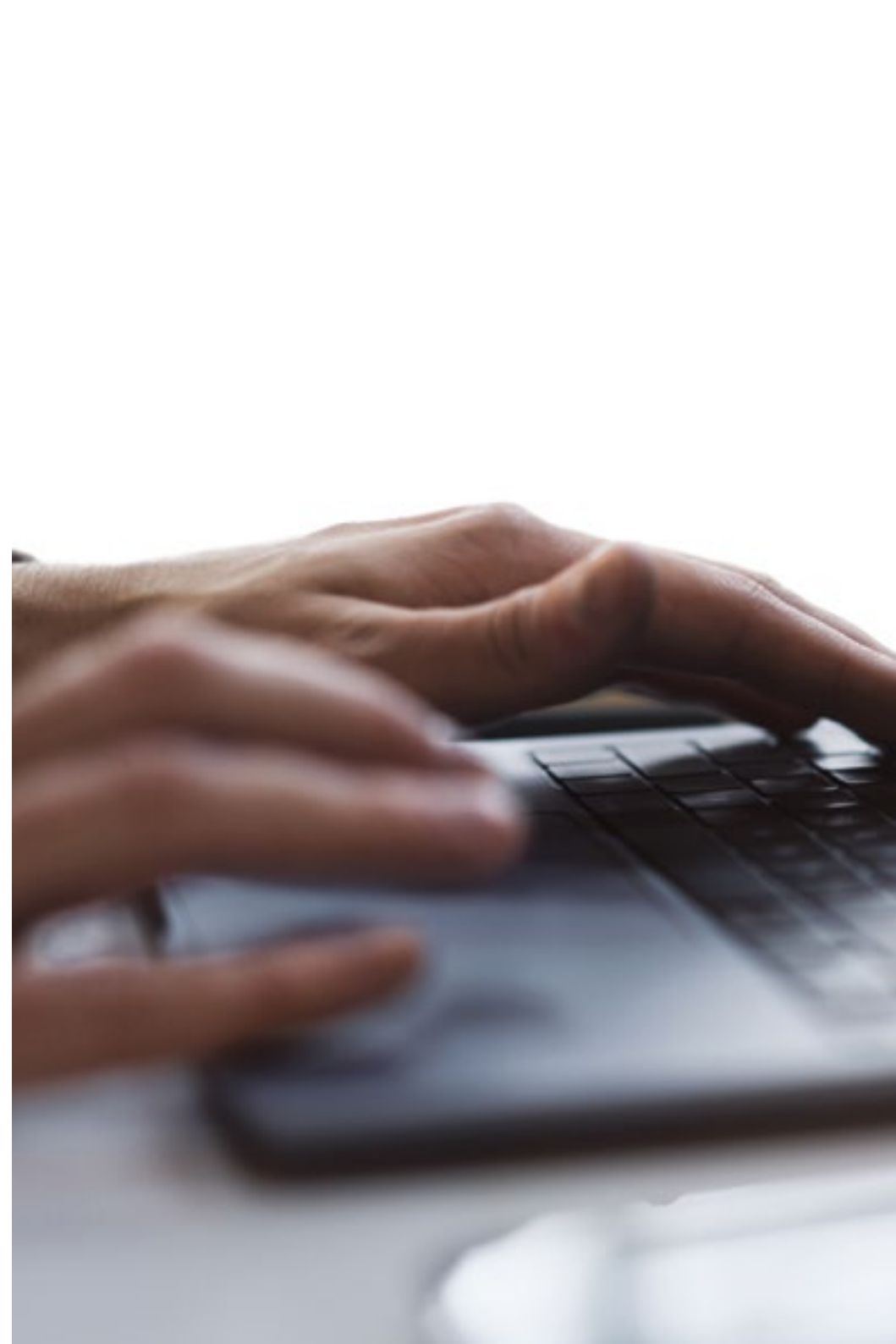
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.





## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”*

### The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

### The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



### 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.

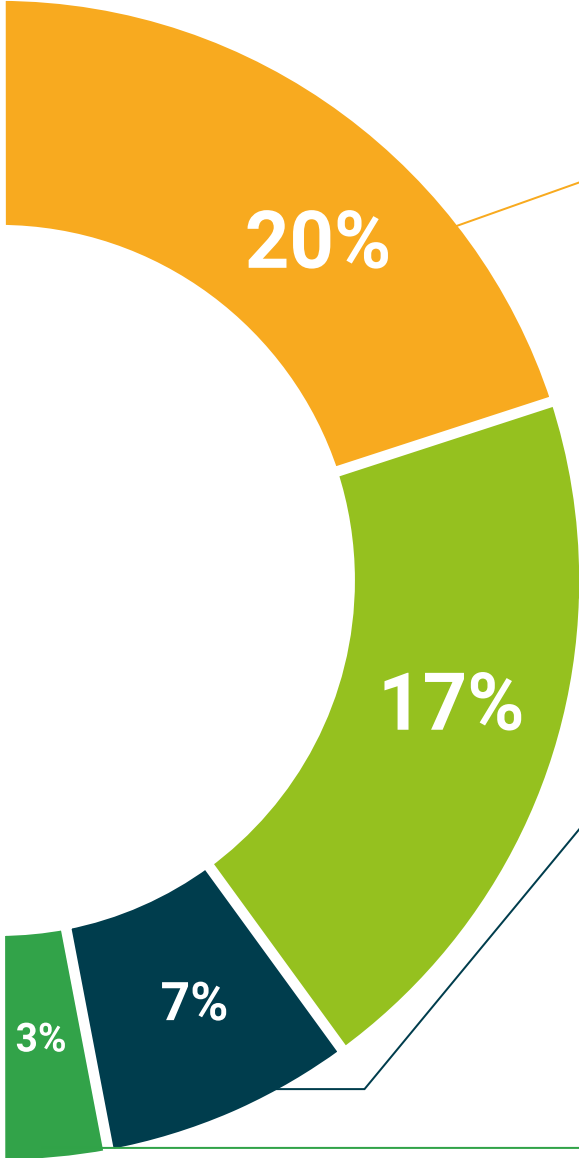
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





**Case Studies**

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



**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 for 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 Certificate in Neurosurgery for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



The image features two black graduation caps (mortarboards) against a bright blue sky with light, wispy clouds. The caps are positioned diagonally, with one in the foreground and another slightly behind it. The background is split into a white lower-left section and a teal upper-right section by a diagonal line.

“

*Successfully complete this training and receive your university degree without travel or laborious paperwork"*

This private qualification will allow you to obtain a **Postgraduate Certificate in Neurosurgery for Nurses**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Neurosurgery for Nurses**

Modality: **online**

Duration: **6 Weeks**

Accreditation: **5 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University 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 quality  
development languages  
classroom



## Postgraduate Certificate Neurosurgery for Nurses

- » Modality: Online
- » Duration: 6 weeks
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- » Accreditation: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate Neurosurgery for Nurses

