Postgraduate Diploma

Neurosurgery and Ophthalmologic Surgery for Nurses

tech technological university

Postgraduate Diploma

Neurosurgery and Ophthalmologic Surgery for Nurses

- » 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-neurosurgery-ophthalmologic-surgery-nurses**

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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.

Improve your knowledge through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality practice"

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 Neurosurgery and Ophthalmologic Surgery for Nurses** urinary 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 specialties. 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 and ophthalmic surgery for nurses.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- With special emphasis on evidence-based health 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 neurosurgery and ophthalmic 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 neurosurgery and ophthalmologic surgery, you will obtain a Postgraduate Diploma from TECH Technological University"

Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma in Neurosurgery and Ophthalmologic Surgery for Nurses.

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

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.

02

Objectives

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

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

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.

Specific Objectives

- 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.
- 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.
- Learn the different types of specific anesthesia for ophthamology (intracamerular, topical, and retrobulbar).
- List the most frequently used drugs in ophthalmology surgery, especially intravitreal injections and apply ocular occlusion dressings.
- Efficiently manage situations in which the surgical plan is changed in cataract surgery due to complications in the scheduled surgery.
- Acquire the necessary knowledge for the handling of specific equipment for cataracts and vitrectomies, as well as the preparation of the material kit and irrigation serotherapy required for each surgery.
- List the different types of ocular lenses that are in stock and their indication according to the pathology.
- Prepare the microscope and know how it works for each type of surgery.
- Explain the techniques of nasal endoscopy, preparation of nasal packing or ocular occlusion in case of bleeding.
- Acquire the necessary skills to collaborate in cornea transplants, intrastromal rings and arcuate incisions with a laser.

Course Management

This program includes highly regarded health professionals in the field of healthcare in its teaching staff, who bring the experience of their work to this specialization.

In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.

Learn about the latest advances in neurosurgery and ophthalmologic surgery for nursing from leading professionals"

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
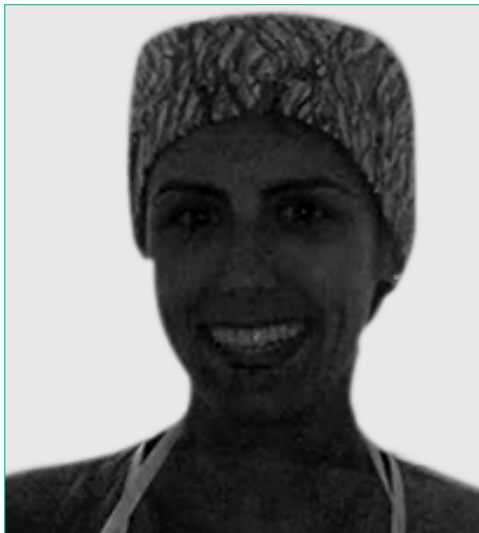
Bárzano Saiz, Mª Eestela

- 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

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

Aldea Garcia, Sonia

Córdoba, Jose Angel

Díaz Trechuelo, Cristina

García, Carmen

García Enciso, Mª Carmen

García Lara, Violeta

Leal, Carmen

López Quesada, Teresa

Puente Rey, Carlos

Rodríguez, Mercedes

Sanchez, Tatiana

Segovia, Catalina

Torrecilla, Laura

Varela, Jara

04
Structure and Content

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

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This Postgraduate Diploma in Neurosurgery and Ophthalmologic Surgery for Nurses contains the most complete and up-to-date scientific program on the market"
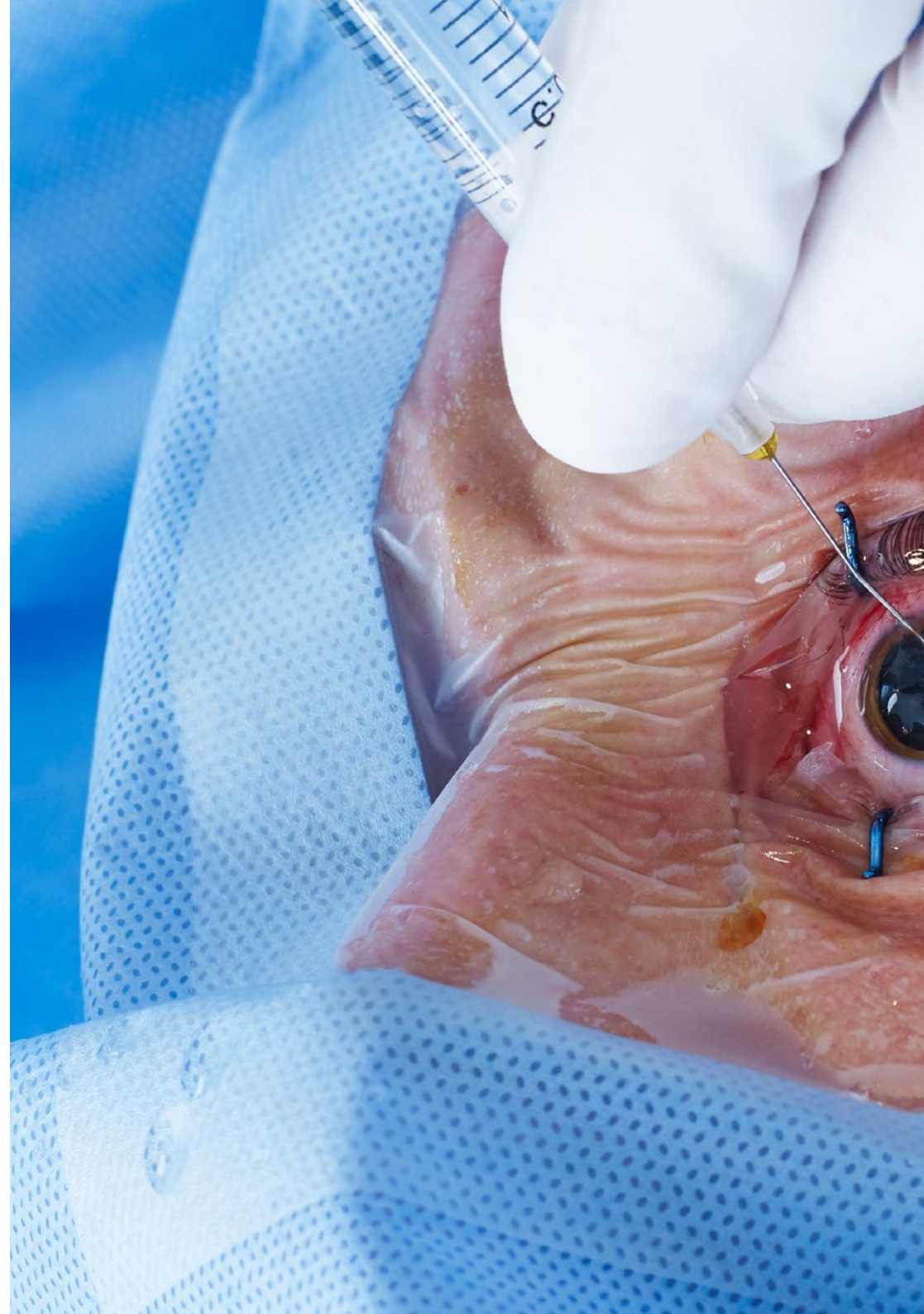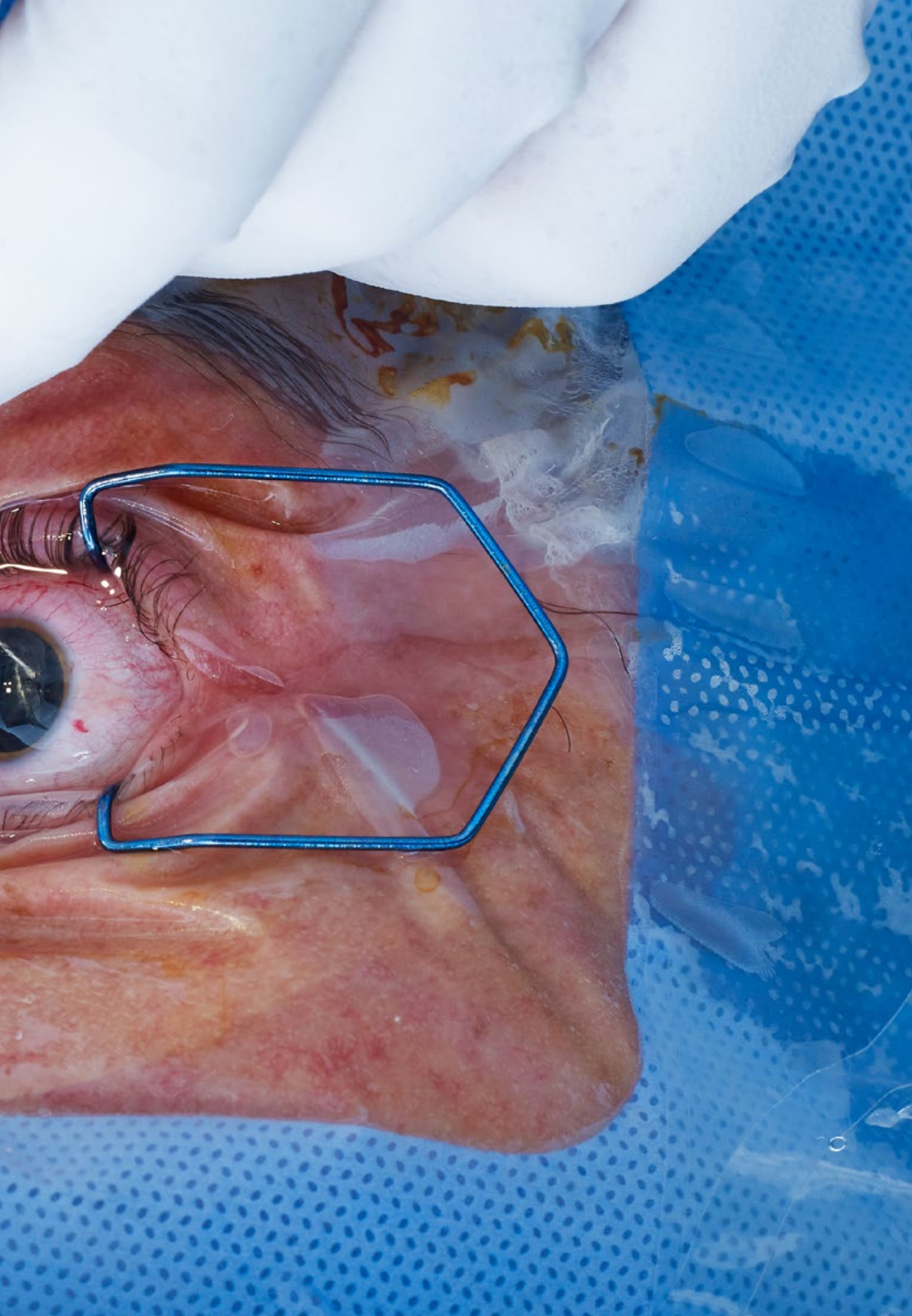
Module 2. Neurosurgery

2.1. General Aspects.
  2.1.1. Structure and Organisation of the Neurosurgery Operating Room.
  2.1.2. Equipment and Material Specific to the Neurosurgery Specialty.
    2.1.2.1. Expendable Material.
    2.1.2.2. Non-Expendable Material.
      2.1.2.2.1. Specific Instruments. Tools, Separators and Headers.
      2.1.2.2.2. Devices
  2.1.3. Specific Sutures.
  2.1.4. Specific Drugs.
2.2. Anatomophysiology and Pathologies to Be Treated.
  2.2.1. Bone Anatomy: Skull and Spinal Column.
  2.2.2. Structural and Functional Neuroanatomy.
  2.2.3. From a Structural Point of View.
    2.2.3.1. Nervous System, Microscopic Anatomy: Neurons and Neuroglia.
    2.2.3.2. Central Nervous System: Forebrain, Midbrain and Hindbrain.
    2.2.3.3. Peripheral Nervous System: Spinal Nerves, Nerve Plexuses and Cranial Nerves.
    2.2.3.4. Sympathetic and Parasympathetic Autonomic Nervous System.
  2.2.4. From a Structural Point of View:
    2.2.4.1. Function of the Nervous System.
2.3. Cranium
  2.3.1. Craniotomy.
    2.3.1.1. Frontal.
    2.3.1.2. Parietal.
    2.3.1.3. Temporal.
  2.3.2. Craniectomy.
    2.3.2.1. Frontal.
    2.3.2.2. Parietal.
    2.3.2.3. Temporal.
    2.3.2.4. Posterior Fossa.
  2.3.3. Trepano.
    2.3.3.1. Ventricular Drainage.
    2.3.3.2. Evacuation of Hematoma.
    2.3.3.3. PIC Sensor Implantation

2.3.4. Trepan-valve.
    2.3.4.1. Ventriculo-Peritoneal Drainage.
    2.3.4.2. Ventriculo-Atrial Drainage.
    2.3.4.3. Stereotactic Biopsy.
    2.3.4.4. Endoscopic Transsphenoidal Surgery.
    2.3.4.5. Ventriculostomy.
2.4. Spine.
  2.4.1. Cervical.
    2.4.1.1. Anterior.
      2.4.1.1.1. Microdiscectomy With or Without Cervical Cage.
      2.4.1.1.2. Corpectomy.
    2.4.1.2. Posterior.
      2.4.1.2.1. Laminectomy With or Without Arthrodesis
      2.4.1.2.2. Hemilaminectomy With or Without Arthrodesis
      2.4.1.2.3. Laminoplasty.
    2.4.1.3. Dorsal: Kaneda.
  2.4.2. Lumbar.
    2.4.2.1. Laminectomy With or Without Arthrodesis.
    2.4.2.2. Hemilaminectomy With or Without Arthrodesis DIE.
    2.4.2.3. O-Arm Interventions.
    2.4.2.4. Vertebroplasty.
    2.4.2.5. Kyphoplasty.
2.5. Nerves.
  2.5.1. Decompression.
    2.5.1.1. Brachial Plexus.
    2.5.1.2. Median and Radial Nerve. Carpal Tunnel.
    2.5.1.3. Ulnar Nerve.
    2.5.1.4. Sciatic Nerve.
  2.5.2. Nerve Transposition.
2.6. Functional Neurosurgery.
  2.6.1. Chronic Pain.
    2.6.1.1. Spinal Electrodes.
    2.6.1.2. Cortical Electrodes.
    2.6.1.3. Deep Electrodes.
    2.6.1.4. Peripheral Electrodes.
    2.6.1.5. Spinal Ganglion Electrodes.
  2.6.2. Spasticity
  2.6.3. Deep BrainStimulation.

Module 3. Ophthalmology

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

05

Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

This teaching system is used 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.

Discover Re-learning, 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 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:

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 university program.

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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 Postgraduate Diploma you will have access to the best educational material, prepared with you in mind:

Study Material

After a complex production process, we transform the best content into high-quality educational and audiovisual multimedia. We select the best syllabus and make it available to you. Everything you need to acquire in-depth knowledge of a discipline, from A to Z. Lessons written and chosen by specialists in each of the disciplines.

Surgical techniques and clinical procedures on video

We bring you closer to the newest techniques, to the latest scientific advances, to the forefront of news. 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 training 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 training.

20%

15%

15%

3%

20%

17%

7%

3%
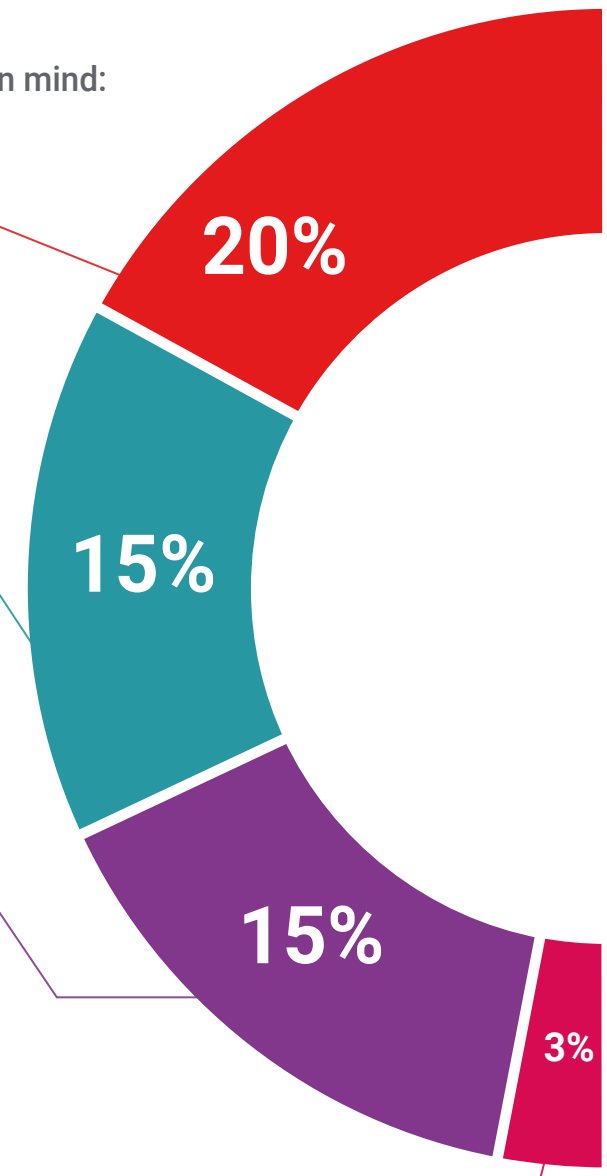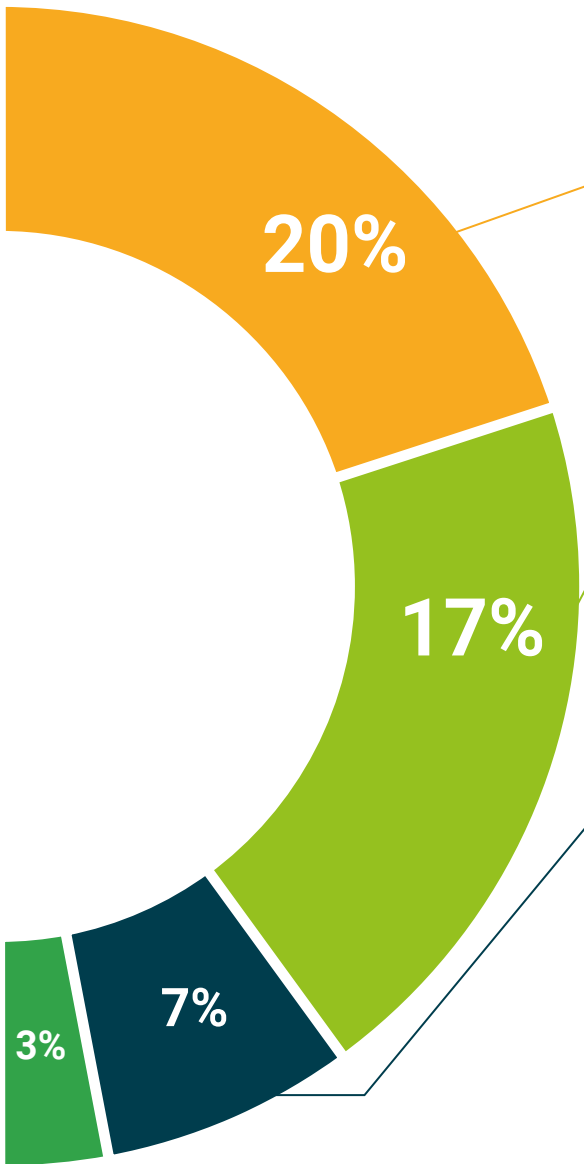
Expert-Led Case Studies and Case Analysis

Through the narratives of expert professionals, it is possible to acquire a high degree of understanding of the most frequent problematic situations. The professional's healthcare practice is not alien to the context in which it takes place. If we want to train ourselves to improve our professional practice, this training must be situated within the context in which it takes place.

Testing & Retesting

We periodically evaluate and re-evaluate your knowledge throughout this program through activities and evaluative exercises.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful. Learning from an expert strengthens knowledge and recall, and generates confidence in our future difficult decisions

Quick Action Guides

One of the most important functions of our team is to select those contents considered essential and present them in the form of worksheets or quick action guides to facilitate their understanding.

Certificate

The **Postgraduate Diploma in Neurosurgery and Ophthalmologic Surgery for Nursing** guarantees, in addition to the most rigorous and updated specialization, access to a university title of Postgraduate Diploma issued by **TECH Technological University**.

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

This **Postgraduate Diploma in Neurosurgery and Ophthalmologic 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 Neurosurgery and Ophthalmologic Surgery for Nurses

ECTS: 16

Official Number of Hours: 400

tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Neurosurgery and Ophthalmologic Surgery for Nurses

This is a qualification awarded by this University, with 16 ECTS credits and equivalent to 400 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma Apostilled, TECH EDUCATION will make the necessary arrangements to obtain it at an additional cost of €140 plus shipping costs of the Apostilled diploma.

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