# Professional Master's Degree

## Advanced Operating Room Nursing

tech technological university

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# Professional Master's Degree

## Advanced Operating RoomNursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/in/nursing/professional-master-degree/master-advanced-operating-room-nursing

# Index

01

# Introduction

With this course, we ensure that professionals, 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 reference hospitals with a high scientific, technological and humanistic level.

*The nursing professional needs to keep up to date with the surgical intervention processes they perform every day. In this program you will find the keys to increase the level of professional performance with a practical methodology 100% virtual, through the best didactic material with real clinical cases"*

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.

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. All of them have in common a series of steps and rules that the members of the team must know in detail, in addition to the general functioning of the surgical unit, in order to avoid and prevent the most common risks in the development of the professional activity.

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 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 **Professional Master's Degree in Advanced Operating Room Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Clinical cases presented by experts in Advanced Operating Room Nursing
- The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- New developments on nursing care and advanced surgical intervention
- It contains practical exercises where the self-evaluation process can be carried out 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 nursing and research methodologies in advanced surgical nursing
- All of 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

*This training will provide you with a sense of security in nursing practice, which will help you grow personally and professionally ”*

*This Professional Master's Degree may be the best investment you can make when selecting an up-to-date program for two reasons: in addition to updating your knowledge in Advanced Operating Room Nursing, you will obtain a degree from TECH Technological University"*

*Increase your decision-making confidence by updating your knowledge through this Professional Master's Degree.*

*Take the opportunity to learn about the latest advances in Advanced Operating Room Nursing and improve your nursing practice.*

Its teaching staff includes professionals from the field of advanced surgical nursing, who bring the experience of their work to this training, as well as recognized 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 academic experience programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. To this end, the nurse will be assisted by an innovative interactive video system developed by recognized experts in the field of surgical nursing with extensive teaching experience.

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# Objectives

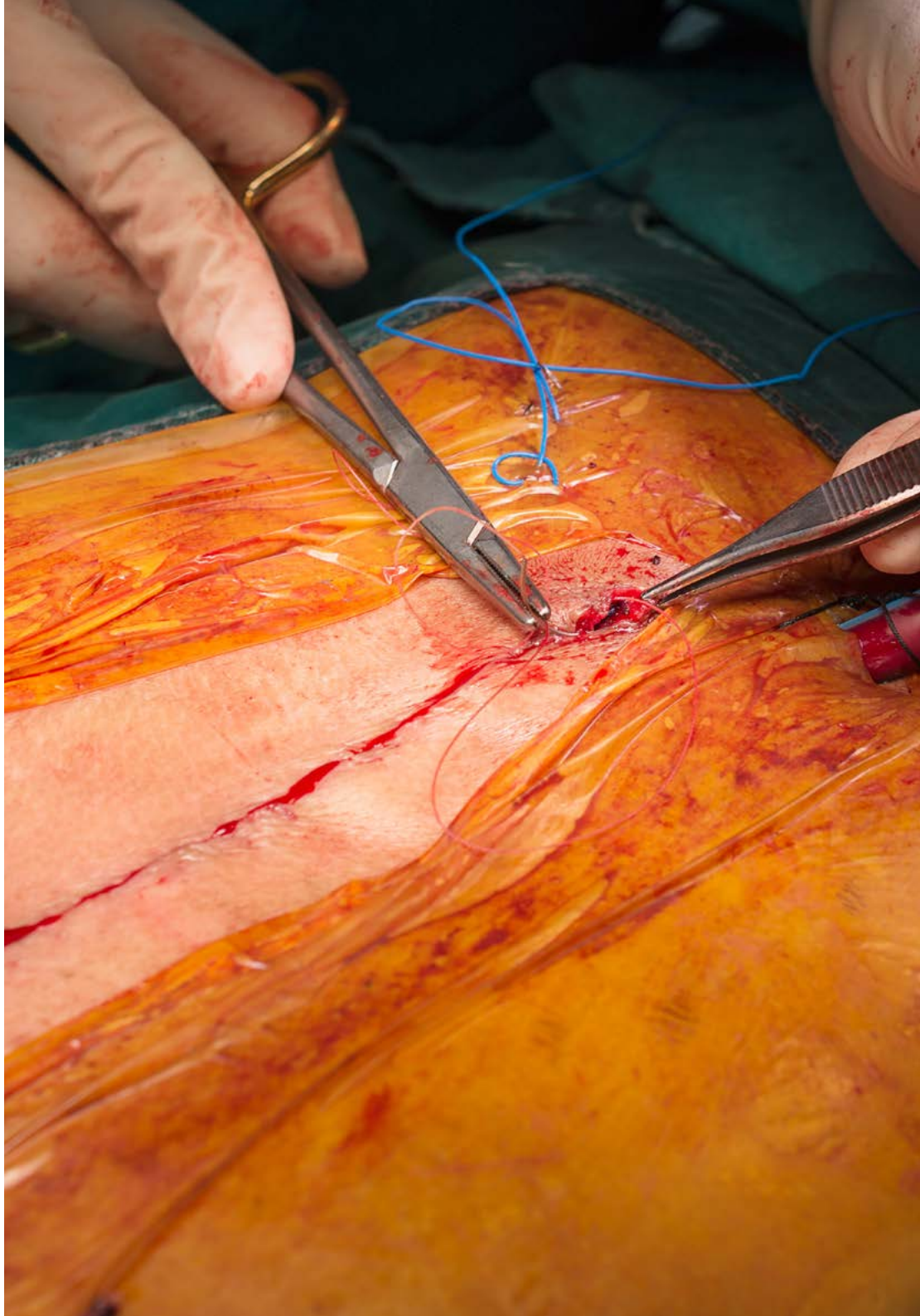
The program in Advanced Operating Room Nursing is oriented to facilitate the updating of the professional dedicated to surgery in the operating room and to the care of the surgical patient in all its modalities.

*This Professional Master's Degree is designed to help you update your knowledge in Advanced Operating Room Nursing, with the use of the latest educational technology, to contribute with quality and safety to decision-making, diagnosis, treatment and patient support"*

## General Objectives

- To update the knowledge of advanced practice nurses in perioperative care in the different medical-surgical specialties, through evidence-based nursing
- 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

*Take the opportunity and take the step to get up to date on the latest developments in Advanced Operating Room Nursing"*



## Specific Objectives

### Module 1. Perioperative Surgical Process

- Explain and define the perioperative surgical process, and its three component stages
- Define the competencies and skills of the surgical nurse, internalising what their qualities and aptitudes should be
- Identify the different areas in which the surgical process takes place, and its interrelation with other support services
- Be aware of the importance of reciprocal information between the patient/family and the nursing professional during the whole surgical process
- Control or minimize the patient's level of anxiety, typical in these situations, as well as pain if present
- Acquire the necessary knowledge to carry out all nursing interventions, depending on the surgical moment
- Learn how to welcome the patient/family, whether in the ward room, in the operating room or in resuscitation
- Learn the most commonly used anesthetic techniques in perioperative medicine, indications and complications
- List the drugs frequently used in the anesthetic procedure, their mechanism of action and side effects, knowing how to act according to the drug administered
- Learn about the different roles of the operating room circulator and the scrub nurse in the operating room
- Be prepared to collaborate with the rest of the surgical team in the correct management of potential complications
- Learn to collaborate with the rest of the team in the transfer and positioning of the patient, ensuring their comfort and safety at all times
- Communicate the necessary information about the patient to the nursing professional who will assume the subsequent care of the patient
- Prepare the patient for discharge when the required care can be provided outside of the hospital
- Acquire the necessary knowledge for each surgery about the anatomy of the area to be operated on, the necessary equipment, consumables and instruments, and the required anesthesia and positioning
- Describe the specific training of the nursing professional in the different surgical specialities

### Module 2. Plastic Surgery

- Mastering microsurgery in free flap and reimplantation surgery
- Learn about breast reconstruction with prostheses, the student will be able to explain the proper handling of the different types of breast implants
- Explain the techniques of breast reduction, controlling the weight of the tissue removed during the operation
- Master the different lipofilling techniques required in each case
- Apply knowledge of osteosynthesis for limb reimplantation procedures
- Explain burn patient interventions and practice specific debridement and grafting techniques (both skin and synthetic)
- Assess the psychological state of patients with gender identity disorder and burn patients, and learn tools to alleviate surgical stress

### Module 3. Orthopedic Surgery and Traumatology

- Explain the proper handling and positioning of the different devices, basic and specific instruments and describe the surgical technique in arthroscopy
- Identify cemented and cementless arthroplasties and describe the number of components of each type of prosthesis, as well as the surgical technique to be followed in these cases
- Integrate knowledge of osteosynthesis for fracture interventions and deformity correction
- Implement measures to reduce the risk of bleeding and the risk of periprosthetic fracture in arthroplasty replacement procedures
- Explain the surgical cementation procedure and the role of the nurse during the procedure
- Proper handling of washing systems and spacer placement in cases of infection
- Assess the importance of checking implant stock prior to surgery
- Explain the importance of the process of bone donation to the bone bank and the reception of bone donations in patients who require surgery
- Assess the psychological state of patients and develop relational tools to help alleviate the stress involved in the surgical process

### Module 4. Neurosurgery

- Identify hospitals that have a neurosurgery service
- List the units collaborating with the neurosurgery service
- Explain the usual protocols in each department
- Providing the necessary material for each surgical intervention
- Summarize neurological anatomo-physiology
- Justifying the need for certain types of drugs in a neurosurgical operating room
- Identify the pathologies that can be treated in the neurosurgical operating room
- Differentiate between programmed and urgent pathologies
- Determine the human and material resources needed to assist each surgery
- Define the surgical position of each intervention
- Describe the surgical technique of each operation
- Generate the intraoperative nursing care document and prepare the patient for admission to the ward
- Develop a care plan using the intraoperative NANDA-NIC-NOC nomenclature

### Module 5. Cardiac Surgery

- Acquire the necessary skills to handle heart valve implants (whether mechanical, biological or rings)
- Explain the role of microsurgery nurses in performing aorto-coronary bypass surgery and the management of autologous vascular grafts required for this surgery
- Differentiate between the different types of implants that can be used in aortic surgery and the care they require
- Master the procedures for intervening in emergencies where the patient's life is at great risk be able to act with temperance and control, having all the necessary equipment for these cases at hand beforehand
- Master the procedures of total or partial surgical resection of the pericardium, including the technique of placing thoracic drains
- Control the use of leads and generators used in pacemaker or ICD implantation/removal.
- Explain the intraoperative and postoperative management of balloon counterpulsation and ventricular assist monitors, devices and systems
- Describe the competencies of the perfusionist nurse, and to acquire a basic understanding of the function of the heart-lung machine, which is essential for most heart operations
- Explain the surgical process of coronary and valve surgeries, as well as pacemaker and/or automatic implantable defibrillator implantations and other surgeries (e.g. short-, medium- and long-term re-interventions), as well as the surgical technique to be followed

### Module 6. General Surgery

- List the units collaborating with the thoracic surgery service
- Explain the usual protocols in each department
- Providing the necessary material for each surgical intervention
- Summarize the anatomo-physiology of the respiratory apparatus
- Justify the need for certain types of medicines inside a thoracic surgery operating room
- Identify the pathologies susceptible to be treated in the thoracic surgery operating room
- Differentiate between programmed and urgent pathologies
- Explain the proper handling and positioning of the different equipment, basic and specific instruments and describe the surgical techniques
- Identify chemical pleurodesis from mechanical pleurodesis, as well as the surgical technique to be followed
- Assess the psychological state of patients and develop relational tools to help alleviate the stress involved in the surgical process
- Identify hospitals that have a thoracic surgery department
- Determine the human and material resources needed to assist each surgery
- Define the surgical position of each intervention
- Integrate anatomical knowledge to describe the surgical technique for each intervention
- Generate the intraoperative nursing care document and prepare the patient for admission to the ward
- Develop a care plan using the intraoperative NANDA-NIC-NOC nomenclature

### Module 7. Ophthalmology

- Describe the handling of the different mechanical suture systems for anastomosis
- Distinguish the material and instruments to organize the preparation of laparoscopic or open surgery
- React in situations of change of surgical plan (laparoscopic to open surgery) if there are potential complications
- Explain the operation of the different types of vessel sealing and cutting forceps required for different surgeries, whether open or laparoscopic
- Explain the placement and handling of equipment and instruments (gas insufflator, camera, cold light source, screens...) in laparoscopic surgery
- Identify the different types of meshes for hernia repair
- Addressing the management of the THD system for hemorrhoids
- Describe the use of radio frequency techniques to eliminate small tumors
- Describe the handling of the radioactivity indicating probe in sentinel lymph node biopsy surgeries
- In emergency situations, prepare hemostasis material and instruments (different hemostatics, clans, etc.), taking into account the possibility of encountering different types of bleeding
- Identify the risk of deep vein thrombosis in long-term surgeries and be able to apply pneumatic compression stockings to the patient

### Module 8. Gynecological and Obstetric Surgery

- Differentiate the types of specific anesthesia for ophthalmology: intracameral, topical, and retrobulbar according to the indication of each surgery
- Update the handling of phacoemulsification and vitrectomy equipment and the preparation of the kits of consumables and irrigation serotherapy required for each type of surgery, in cataract and vitrectomy surgeries
- Identify the types of eyeglass lenses that exist, indicated for each patient according to their pathology
- Determine the use and preparation of binocular helmet, Honan balloon and manometer, intraocular gases, as well as electrical and mechanical devices such as laser, diathermy, cold generator and motor to guarantee optimal conditions for the surgeries in which they are required
- 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 in dacryocystorhinostomy surgeries
- Know the indications of the indicated drugs, as well as to prepare the material and instruments required to carry them out in intravitreal injections
- Identify the most frequently used drugs during ophthalmology surgery
- Master the making of the occlusion dressing

### Module 9. Vascular Surgery

- Acquire the necessary knowledge to perform laparoscopic surgery in gynecology, and to learn the particularities of the interventions performed by this technique
- Update procedures for handling samples/pieces removed for subsequent analysis in pathological anatomy
- Assess the importance of prompt action in the event of ectopic pregnancy and life-saving emergency intervention



- Control instruments and material in contact with the tumor so as not to spread it to adjacent areas in laparotomy operations
- Take special care in vaginal surgeries of gauze counting, and control of implanted meshes in pelvic floor repair
- Know the particularities of the different breast surgeries, especially the handling of implants in breast reconstruction, and the control of sentinel lymph node biopsy
- Knowing how to collaborate with the rest of the team in both scheduled and emergency cesarean sections, acquiring the necessary skills to do so

### Module 10. Urology

- Managing the amputated limb, including its identification, handling and transportation
- Acquire the necessary skills to perform peripheral access surgeries (femoral, radial, etc.), as well as the handling of stents and stent grafts necessary for these interventions
- Master the particularities of microsurgery, a technique necessary for the performance of any type of bypass, and will be trained in the handling of vascular grafts (autologous, with prosthesis or in situ)
- Explain the resolution of pseudoaneurysm, with percutaneous injection of ultrasound-guided thrombin
- Acquire the necessary knowledge to collaborate in the performance/repair of arterio-venous fistulas, as well as in reparative surgeries of venous insufficiency
- Collaborate efficiently with the rest of the team in moments of vital urgency, which patients with vascular pathology frequently experience

- **Module 11. Maxillofacial**
- Explain the proper handling and positioning of the different devices, basic and specific instruments, and to know the surgical technique in arthroscopies of the temporomandibular joint
- Integrate knowledge of osteosynthesis and osteotomies to instrument according to the surgical technique of the material to be implanted (miniplates, microplates, simple or preformed meshes, self-tapping and/or self-drilling screws), in facial and maxillary fracture interventions and in orthognathic surgery
- Update microsurgical procedures in maxillofacial reconstruction operations with free flaps
- Master the Coleman lipofilling and PRP (platelet-rich plasma) techniques for repair of facial defects required in each case
- Become familiar with the different types of tracheostomy cannulae of different calibres and to acquire the necessary skills to cooperate in tracheostomy operations, which is a complicated surgery involving many anatomical structures
- In surgeries of facial lesions, parotid and tongue, the student will know how to process intraoperative samples to analyze very common pathologies of the anatomy in most of these interventions
- Identify the different modalities of cartilage grafts and skin coverage in order to be able to cooperate in rhinoplasty procedures



- **Module 12. Otorhinolaryngology**
- Processing of intraoperative specimens, which are very frequent in most neck surgeries
- Cooperate in laryngectomy and subsequent tracheotomy, which is a complicated surgery involving many anatomical structures
- Identify the different types of tracheostomy tubes and learn how to prepare them before insertion
- Participate in any of the interventions affecting the vocal cords and help the patient with psychological support as post-surgical speech is compromised
- Learn the importance of bleeding control in pharyngeal surgeries
- Control all the material and equipment necessary to carry out endoscopic nasosinus surgery (CENS), minimally invasive surgical approach, as well as other nasal surgeries
- Master the very specific instruments used in ear surgery, implants, and the use of the microscope

**Module 13. Thoracic surgery**

- Prepare and assist in any of the surgeries performed via transurethral route, whether diagnostic, curative or catheter placement/removal
- Describe laparoscopic surgery in urology, and learn the particularities of the interventions performed by this technique
- Anticipate and manage potential complications of nephrectomy (such as injury to a digestive organ or major blood vessel)
- Learn how to collaborate with the rest of the team in kidney implantation
- Master the technique of the nephrostomy procedure, as well as its subsequent care and maintenance

03

# Skills

After passing the evaluations of the Professional Master's Degree in Advanced Operating Room Nursing, the nurse will have acquired the professional competencies required for quality and up-to-date practice based on the latest scientific evidence.

*With this program you will be able to master the latest advanced surgical procedures and apply the best patient care before, during and after surgery"*

## General Skills

- Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
- Recognize the need to maintain your professional skills and keep them up to date, with special emphasis on autonomous and co ntinuous learning of new information
- Develop the capacity for critical analysis and research in your professional field

*Take the opportunity and take the step to get up to date on the latest developments in Advanced Operating Room Nursing"*



## Specific Skills

- Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
- Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner

04

# Course Management

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

*Learn from leading professionals the latest advances in advanced surgical nursing procedures"*

## Management

### Ms. Guzmán Almagro, María Isabel

- Diploma in Nursing
- Official University Professional 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

### Ms. Bárzano Saiz, Maria Estela

- Diploma in Nursing
- Diploma in Physiotherapy
- Professional Master's Degree in Counselling from the San Camilo Centre for the Humanisation of Health
- Operating room nurse with several years of experience in Orthopedic and Trauma Surgery, Plastic Surgery and General Surgery operating rooms at La Paz University Hospital, Madrid, Spain

## Ms. Alba López, Alicia

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

## Professors

### Ms. Valverde Girón, Laura

- Surgical nurse with 9 years of experience in the specialities of orthopedic and trauma surgery, general surgery, plastic surgery and gynecological surgery, in La Paz University Hospital, Cantoblanco Hospital, and Santa Cristina University Hospital in Madrid

### Ms. Palomares García, Vanesa

- Author Traumatology module
- Operating room nurse in orthopedic and trauma surgery and plastic surgery since April 2014 at La Paz University Hospital in Madrid

### Ms. Valero Villar, Ana María

- Author Traumatology module
- Operating room nurse since 2008 in the specialities of traumatology, plastic surgery at University Hospital Gregorio Marañon and at University Hospital La Paz in Madrid. Postgraduate Diploma in surgical nursing, anesthesia and resuscitation. Faculty of Health Sciences 2012. University expert in community health promotion. Uned 2010

### Ms. Berrocal Antelo, Amaya

- Surgical area nurse in the operating room of various specialities, Doce de Octubre Hospital
- Instrumentalist, Neurosurgery team, Hospital la Zarzuela
- Surgical area nurse in the operating room of various specialties and CMA, Hospital la Zarzuela
- Diploma in Nursing at the EUE and Physiotherapy San Juan de Dios, in the teaching unit of San Rafael, Comillas
- Higher Level Training Cycle. Higher Technician in Dietetics and Nutrition

### Ms. Gonzalez San José, Raquel

- Author general surgery module
- Surgical Area Nurse in General Surgery 2006-2017
- Tutor of clinical trainees 2006-2017
- La Paz University Hospital

### Ms. Rubio Martín, Mª Eugenia

- Author Urology module
- DUE with 14 years of experience in operating rooms in various specialities. Currently in the urology department (for the last 6 years) at the Hospital Infanta Sofía. Tutor of trainees eu, ucm (currently, for the last 6 years). Postgraduate Certificate in the Operating Room

### Ms. Teresa Lora, Ana Isabel

- Author Urology module
- Graduate in nursing (prize for the final degree dissertation in nursing). Postgraduate Diploma in the Operating Room at the School of Health Sciences and several courses in operating room. 12 years working in the operating room in various specialities, the last 9 years in urology at the Infanta Sofia Hospital. Trainee tutor in the operating room for nursing students at the Complutense and European Universities

### Ms. Carrero Villareal, Mercedes

- Author Traumatology module
- 9 months at the University Hospital of Ciudad Real. (General surgery and traumatology)
- 18 Months at the Perpetuo Socorro Hospital in Albacete. (Traumatology)
- 18 Months at the Infanta Sofía Hospital in San Sebastián de los Reyes. (Traumatology, and emergency gynecology, general surgery, urology and otorhinolaryngology)
- 2 years at University Hospital La Paz (Traumatology, plastic surgery and cardiothoracic surgery)
- 15 months as an instrumentalist in traumatology at the Hospital Nuestra Señora del Rosario
- Teaching nursing students at the University of Castilla la Mancha in Albacete

### Ms. Abellán Cuadrado, Mryam

- Lecturer in plastic surgery and general surgery
- 7 years as a nurse in the operating rooms of the University Hospital La Paz in Madrid. In neurosurgery, maxillofacial, vascular and cardiac specialties (three months) and in traumatology, plastic and general surgery the rest of the time

### Ms. Malpartida Méndez, Alba

- Lecturer in gynecology and obstetrics module
- Two years' experience as a surgical nurse. Two years of teaching with trainee nursing students
- University expert in nursing processes and interventions for adult patients in life-threatening situations

### Ms. López Quesada, Teresa

- Lecturer module perioperative process
- Supervisor. Surgical inpatient unit
- Surgical block: more than 4 years as a surgical nurse
- External rotation at Manchester Royal Infirmary Hospital (UK) after winning the Aspect Medical Systems award: The "monitoring of anesthetic depth", awarded by the Spanish Society of Anesthesia and Resuscitation. Rotation in the surgical block of general, maxillofacial, cardiothoracic and vascular surgery and the intensive care unit
- Coordinator of the courses "Update in nursing care for geriatric patients in trauma hospitalisation units"
- Nurse collaborating in practical teaching in the operating room with the Complutense University of Madrid
- Lecturer in 2 editions of the "acute postoperative pain" course. Hospital Infanta Sofía San Sebastián de los Reyes

### Ms. Colomar Marroig, Aina

- Lecturer in gynaecology and obstetrics module
- Operating room nurse in gynecology and obstetrics at University Hospital La Paz since 2004

### Ms. Vitini Manso, Rosalia

- Lecturer in gynecology and obstetrics module
- Operating room nurse in gynecology and obstetrics at University Hospital La Paz since 2004

### Ms. García Enciso, Carmen

- Lecturer perioperative module
- Graduate in Nursing in 2009 from the Alfonso X el Sabio University
- Currently, nurse in the Traumatology Unit, Hospital La Paz, Madrid
- Also with experience in the rehabilitation and trauma resuscitation unit
- Expert in advanced nursing care

### Ms. Jiménez Ramos, Irene

- Surgical nurse in gynecological and obstetric surgery, and in general surgery operating theatres at La Paz University Hospital
- Currently operating room pool for all surgical specialties at Ramón y Cajal University Hospital
- External collaboration as author and coordinator of opposition abstracts for the Paradigma Group

### Ms. Valero Calvo, Jara

- Operating Room Nurse, Ophthalmology Specialties, Hospital Universitario La Paz de Madrid since July 2014
- University Expert Degree in Advanced Applied Nursing Care from the University of León
- Nurse research collaborator for the Fundación Biomédica del Hospital Universitario Gregorio Marañón in the project: Effectiveness of an early intervention in the diagnosis and treatment of hyponatremia for the prevention of falls in hospitalized patients from February 2015 to February 2016
- Publication of the Research Project: "The experience of the school child after burns" published by the INVESTEN Committee at the International Meeting on Research in Care. November 2014

05

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best hospitals and universities in the country, who are aware of the relevance of up-to-date education to be able to intervene in the prevention, care, and treatment of patients' surgical pathology, and who are committed to quality teaching through new educational technologies.

*This Professional Master's Degree in Advanced Operating Room Nursing contains the most complete and up-to-date scientific program on the market"*

## **Module 1.** Perioperative Surgical Process

1.1. Definition Perioperative Surgical Process
1.2. Pre-Surgery Surgical Process
1.3. Intraoperative Surgical Process
1.4. Post-Surgery Surgical Process

## **Module 2.** Plastic Surgery

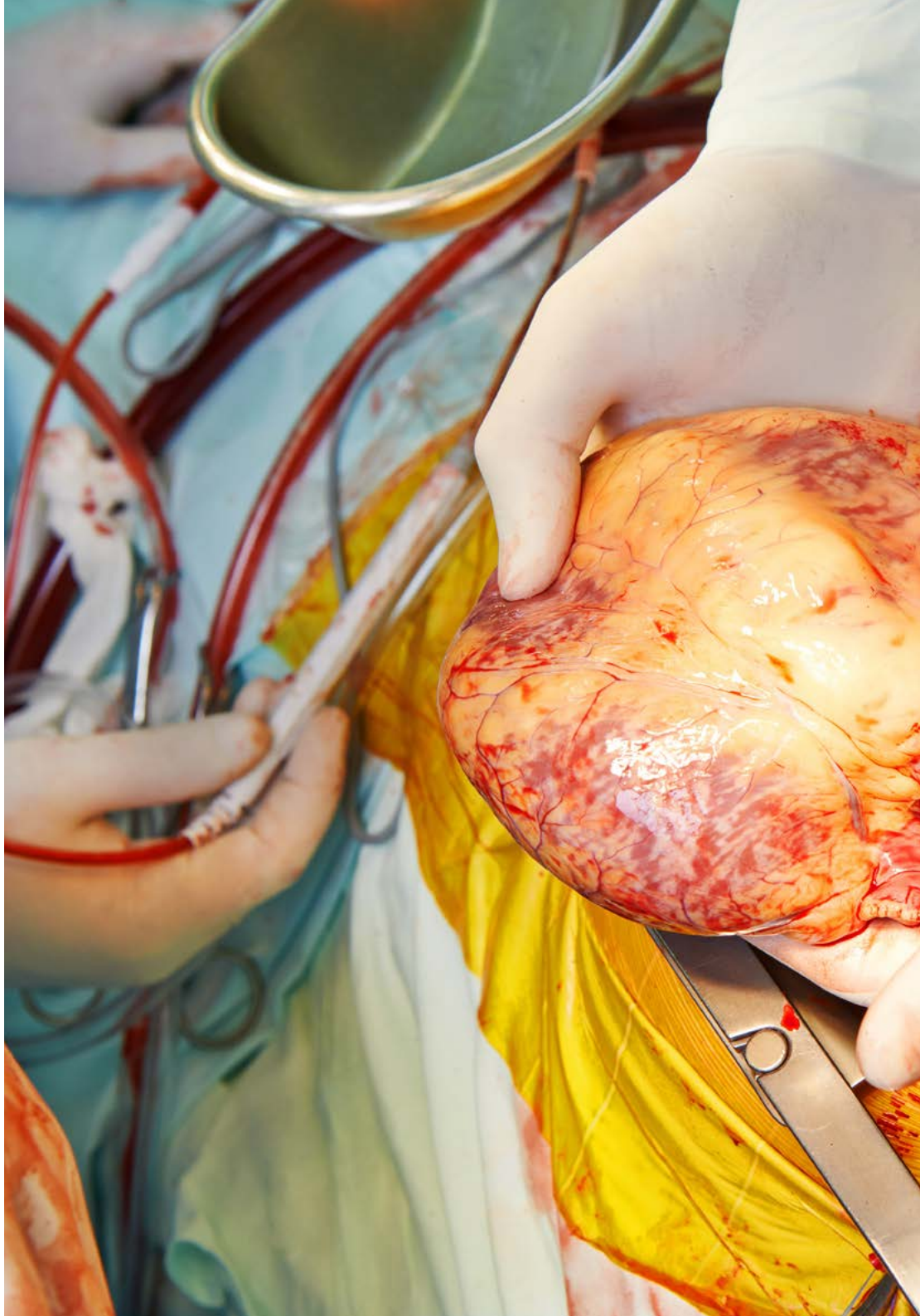
2.1. Breast Surgery
2.2. Liposuction and Autologous Fat Filling/Lipofilling
2.3. Free Flaps for Loss of Substance in MMII
2.4. Burns
2.5. Plastias
2.6. Limb Reimplantation and Limb Transplantation
2.7. Gender Identity Disorder

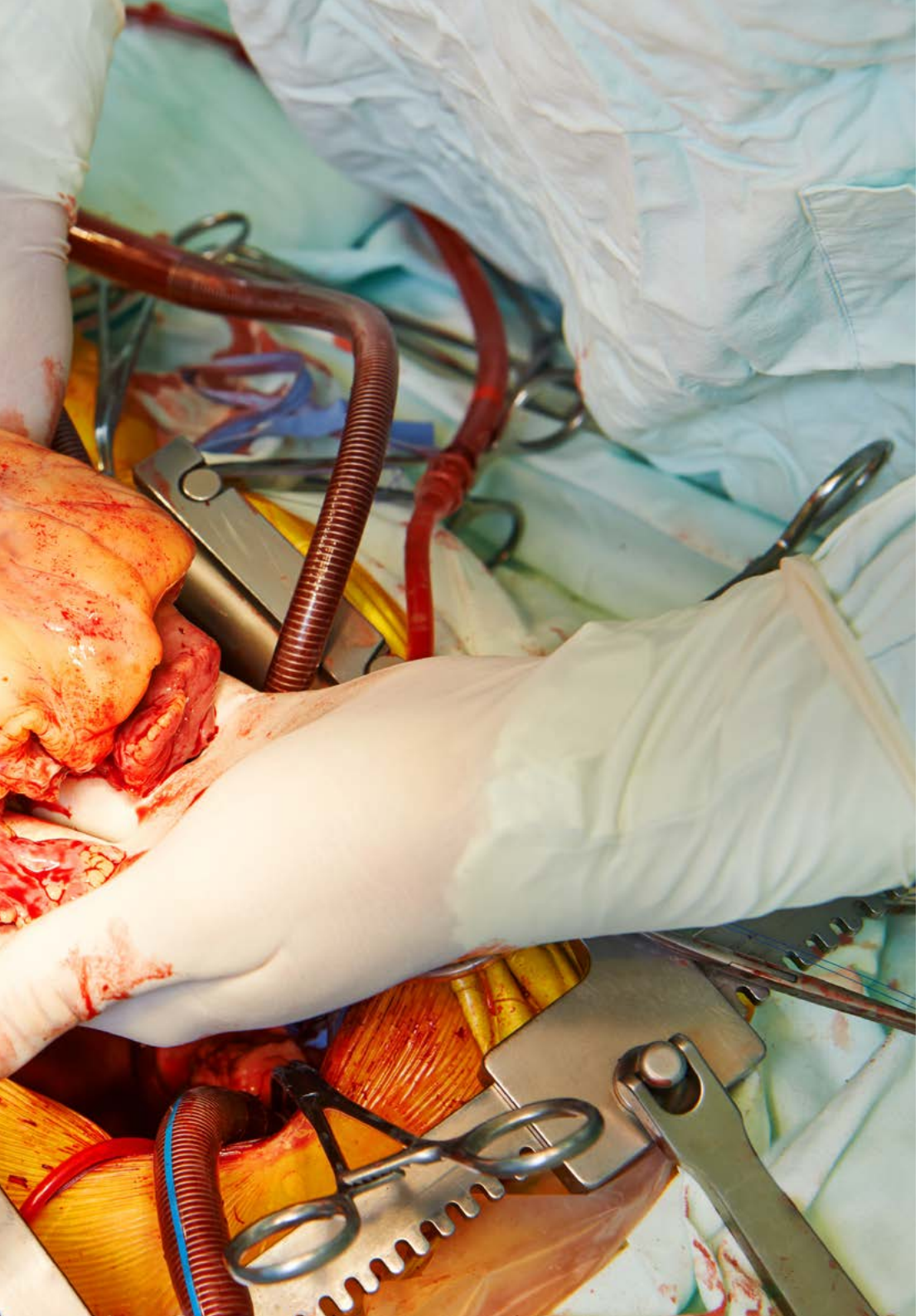
## **Module 3.** Orthopedic Surgery and Traumatology

3.1. Particularities in TOC
3.2. MMSS Primary Prosthesis and Surgical Cementation
3.3. Primary Prosthesis MMII
3.4. Replacement of Primary Prostheses, Surgical Washing and Spacers
3.5. Osteosynthesis 1: Consolidation, Reduction and Stability
3.6. Osteosynthesis 2: Fracture Fixation
3.7. Peri-implant Osteosynthesis, EMO and O-ARM®
3.8. Osteosynthesis in the Axial Skeleton
3.9. Exploratory Arthroscopy and Repair of Tendon Structures
3.10. Tumor and Experimental Surgery

## **Module 4.** Neurosurgery

4.1. Particularities in Neurosurgery
4.2. Anatomophysiology and Pathologies to Be Treated
4.3. Cranium
4.4. Spine
4.5. Peripheral Nerves
4.6. Functional Neurosurgery







## **Module 5.** Cardiac Surgery

5.1. Particularities in Cardiac Surgery
5.2. Anatomophysiology
5.3. Valve Surgeries
5.4. Coronary Surgeries. Aorto-Coronary and/or Mammo-Coronary Bypass
5.5. Reconstructive Surgeries for Heart Rhythm Disturbances
5.6. Surgeries in Adults with Congenital Heart Disease
5.7. Other Surgeries
5.8. Emergency Interventions
5.9. Management of Balloon Counterpulsation, Ventricular Assist and ECMO Cardiogenic Shock
5.10. Heart-Lung Machine

## **Module 6.** General Surgery

6.1. Surgeries Performed by Laparotomy
6.2. Surgeries Performed by Laparoscopy
6.3. Proctological Surgery
6.4. Breast Surgery
6.5. Endocrine Surgery
6.6. HIPEC: Hyperthermic Intraperitoneal Chemotherapy (comprehensive surgery for peritoneal carcinomatosis with hyperthermic chemotherapy)

## **Module 7.** Ophthalmology

7.1. Particularities in Ophthalmology
7.2. Cataracts
7.3. Retinal Pathology
7.4. Corneal Pathology
7.5. Oculoplasties
7.6. Trabeculectomy for Glaucoma

## **Module 8.** Gynecological and Obstetric Surgery

8.1. Gynecological Operations Performed by Laparoscopically
8.2. Interventions Performed by Laparotomy
8.3. Interventions Performed Vaginally
8.4. Interventions Performed on the Breast
8.5. Pregnant Woman
8.6. Fetal Surgery

## **Module 9.** Vascular Surgery

9.1. Carotid Endarterectomy
9.2. Bypass (with prosthesis, with vein or in situ)
9.3. Thrombectomy/Embolectomy for Upper or Lower Limb Ischemia
9.4. Arterio-Venous Fistula
9.5. Varicose Veins Insufficiency
9.6. Amputations and Repair of Vascular Anomalies
9.7. Arterial Angioplasties (with or without vascular stenting)
9.8. Vascular Endoprosthesis (thoracic aorta/abdominal aorta)

## **Module 10.** Urology

10.1. General, Urology and Laparoscopic Interventions
10.2. Transurethral Interventions
10.3. Interventions Performed by Laparotomy
10.4. Percutaneous and Other Interventions
10.5. Other Interventions

## **Module 11.** Maxillofacial

11.1. Jaw
11.2. Reduction and Osteosynthesis of Maxillofacial Fractures
11.3. Facial
11.4. Oral
11.5. Surgical Approach to Maxillofacial Abscesses
11.6. Tracheostomy

## **Module 12.** Otorhinolaryngology

12.1. Otolaryngological Surgery
12.2. Tracheal Surgery
12.3. Laryngeal Surgery
12.4. Pharyngeal Surgery
12.5. Nasal Surgery
12.6. Ear Surgery

## **Module 13.** Thoracic surgery

13.1. Particularities in Thoracic Surgery
13.2. Respiratory System Anatomophysiology
13.3. Tracheal Surgeries
13.4. Lung Surgeries
13.5. Other Surgeries

*A unique, key, and decisive educational experience to boost your professional development"*

06

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

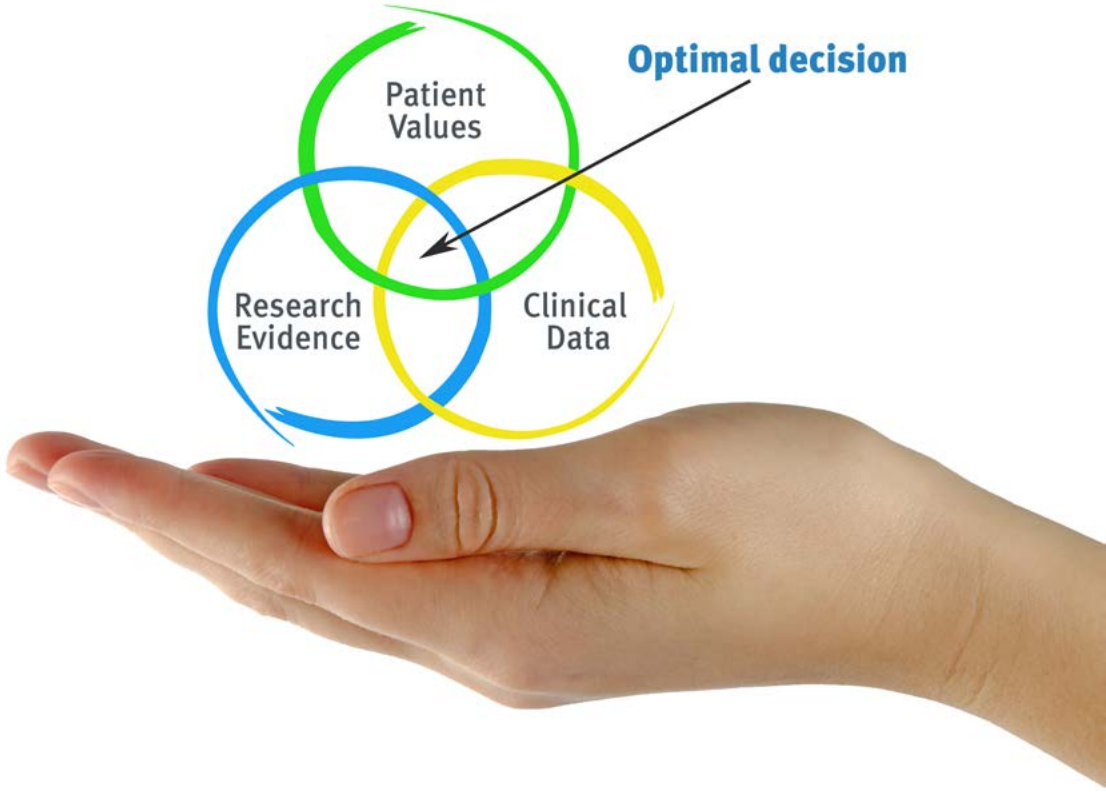
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

*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.

*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:**

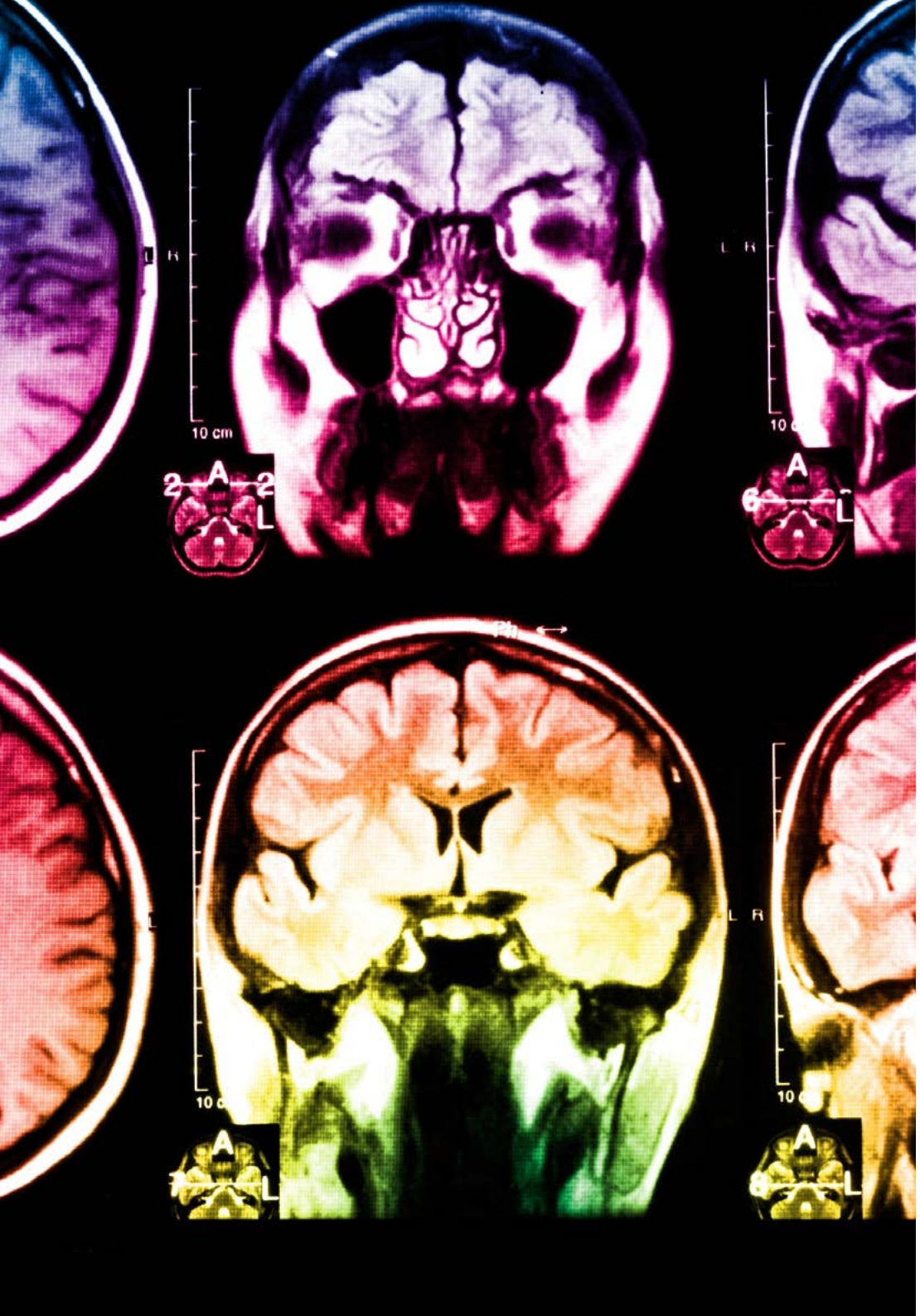
1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into 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.

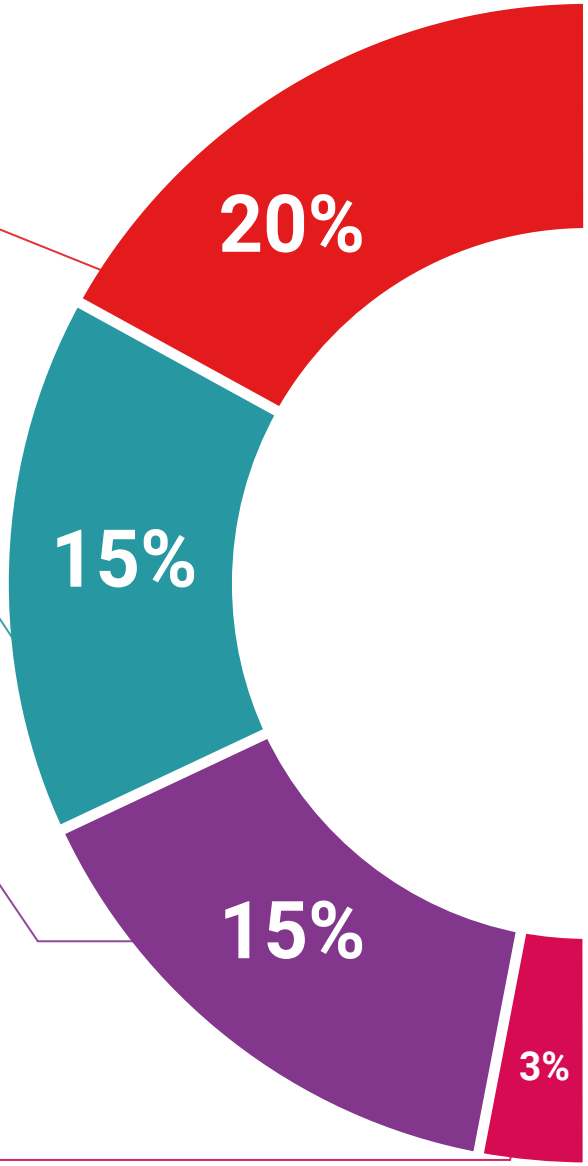
### Interactive Summaries

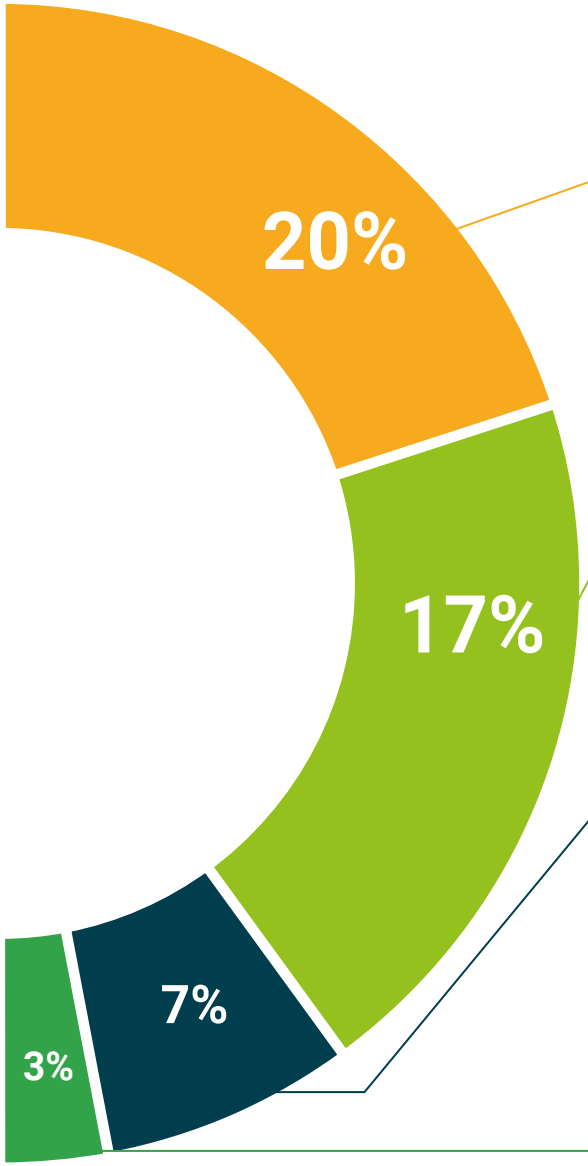
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.

07

# Certificate

The Professional Master's Degree in Advanced Operating Room Nursing guarantees students, in addition to the most rigorous and updated education, access to a Professional Master's Degree issued by TECH Technological University.

*Successfully complete this program and receive your university degree without travel or laborious paperwork”*

This **Professional Master's Degree in Advanced Operating Room Nursing** 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 **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will express the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Professional Master's Degree in Advanced Operating Room Nursing**

Official Nº of hours: **1,500 h.**


tech technological university

Awards the following

CERTIFICATE

to

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

For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Advanced Operating Room Nursing

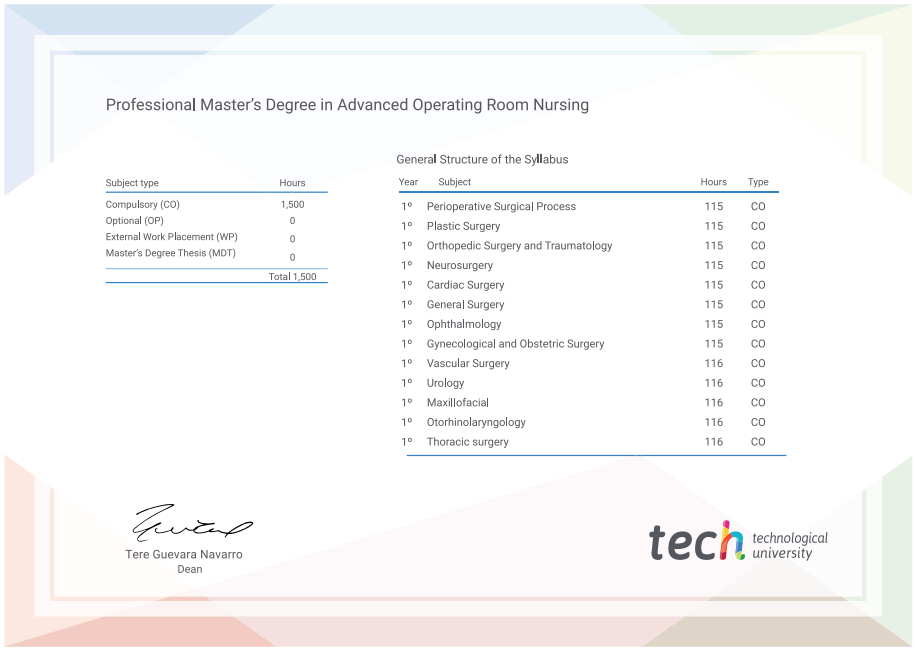
This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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


Professional Master's Degree in Advanced Operating Room Nursing

| Subject type | Hours |
|---|---|
| Compulsory (CO) | 1,500 |
| Optional (OP) | 0 |
| External Work Placement (WP) | 0 |
| Master's Degree Thesis (MDT) | 0 |
| | Total 1,500 |

General Structure of the Syllabus

| Year | Subject | Hours | Type |
|---|---|---|---|
| 1º | Perioperative Surgical Process | 115 | CO |
| 1º | Plastic Surgery | 115 | CO |
| 1º | Orthopedic Surgery and Traumatology | 115 | CO |
| 1º | Neurosurgery | 115 | CO |
| 1º | Cardiac Surgery | 115 | CO |
| 1º | General Surgery | 115 | CO |
| 1º | Ophthalmology | 115 | CO |
| 1º | Gynecological and Obstetric Surgery | 115 | CO |
| 1º | Vascular Surgery | 116 | CO |
| 1º | Urology | 116 | CO |
| 1º | Maxillofacial | 116 | CO |
| 1º | Otorhinolaryngology | 116 | CO |
| 1º | Thoracic surgery | 116 | CO |

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*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.

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# Professional Master's Degree

## Advanced Operating Room Nursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

# Professional Master's Degree

## Advanced Operating Room Nursing

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