

# Advanced Master's Degree Operating Room Nursing



## Advanced Master's Degree Operating Room Nursing

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/nursing/advanced-master-degree/advanced-master-degree-operating-room-nursing](http://www.techtitute.com/us/nursing/advanced-master-degree/advanced-master-degree-operating-room-nursing)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Skills

---

*p. 18*

04

Course Management

---

*p. 26*

05

Structure and Content

---

*p. 32*

06

Methodology

---

*p. 46*

07

Certificate

---

*p. 54*

# 01

# Introduction

Professionals working in the field of nursing need to be constantly updating their knowledge, especially in more intense areas of specialization. In the case of Operating Room Nursing, this requirement is even more essential because without constant training, the professional in this field cannot maintain optimal operating conditions. This is a well-known fact for the workers in this field. However, the constant advances in intervention techniques, technology, protocols, monitoring techniques and all the other aspects involved in this sector, make it very difficult for nurses to access high-quality refresher programs, especially ones that are also compatible with work and personal life. This Advanced Master's Degree has been created to meet this demand, gathering the most advanced and up to date information on operating room nursing into one unique and extraordinary specialization course. A high-quality training course, centered on a flexible approach, allowing professionals to acquire the necessary skills in a way that is totally compatible with other commitments they may have. A unique opportunity to take a leap up to the next level in your specialization.







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*This Advanced Master's Degree is an exceptional specialization that will allow you to grow in your profession with the security of having the best content, the most renowned experts in the sector and all the support systems and flexibility you need to achieve the skills of a top professional"*

The field of surgical technology is constantly expanding, and hospital managers are increasingly looking to recruit professionals whose profile is adapted to the requirements of their job, and who are qualified and endorsed for carrying out this type of work. This is why a new team awareness has been developed among the professionals in the surgical field. They continue to enrich their professional skills in this field every day, in order to meet the demands of new techniques and care that come with the advances in surgery as a whole.

Each one of the very varied surgical interventions that are performed, requires a specific procedure, a specific technique and the unique 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. Bad praxis in this specialist department can cause irreparable damage, and can even be fatal for the patient.

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 ensures that the professional, whether or not they have experience working in any of the departments that make up the perioperative process, integrates into their work practice the experience of professionals already working in nationally and internationally renowned hospitals with a high scientific, technological and humanistic level.

This Advanced Master's Degree is a specialization with a greater scientific, technical, teaching and practical scope that provides you with all the necessary knowledge to be at the forefront of this area of intervention. Everything that you need to know, in one place and with all the facilities needed for learning.

This **Advanced Master's Degree in 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 the different specialities.
- ♦ Graphic, schematic and eminently practical contents with the latest scientific and healthcare information.
- ♦ The latest diagnostic and therapeutic innovations in gynecology and assisted reproduction.
- ♦ Practical workshops on procedures, diagnosis and treatment techniques.
- ♦ Real images in high resolution and practical exercises where the self-evaluation process can be carried out to improve learning.
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ♦ 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.



*Join the forefront of your specialization with this Advanced Master's Degree in Operating Room Nursing. An exceptional, high-intensity specialization that will result in a leap towards an extraordinary level of qualification"*

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*This Advanced Master's Degree is the best investment that you could make into your future. A path towards excellence that will help you to become one of the best-trained nurses in the sector. An incredible leap in your competitiveness in the job market”*

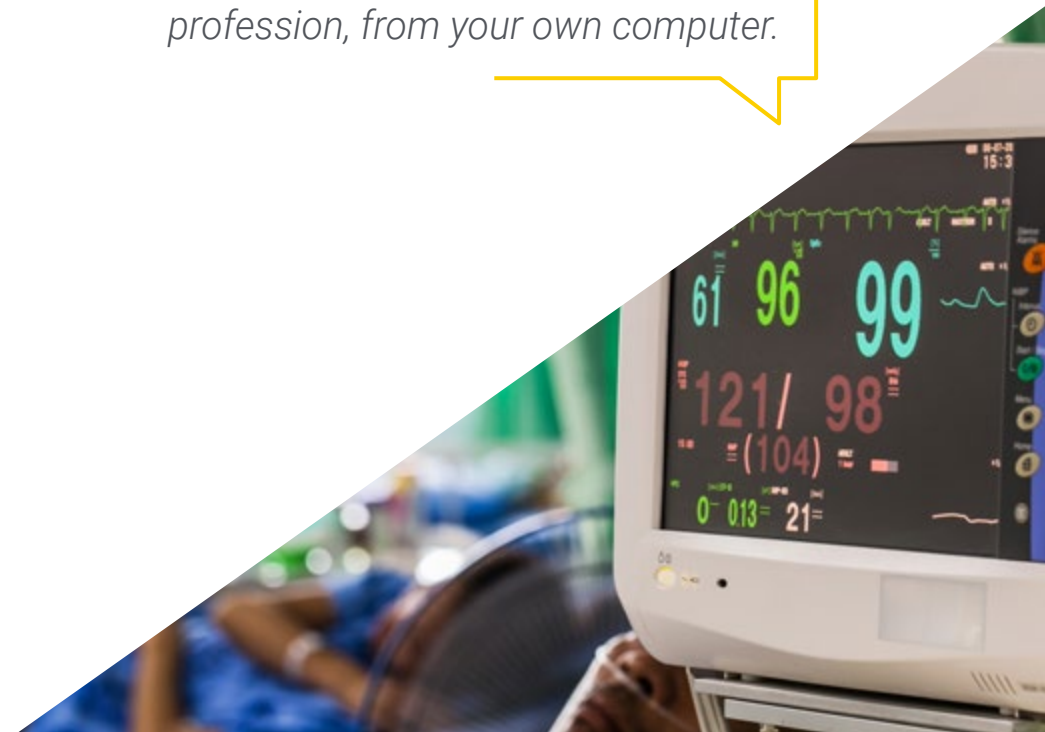
The teaching staff is made up of the best professionals in the sector. It includes professionals currently working in the field, who bring their experience to this Advanced Master's Degree, as well as renowned specialists from leading scientific societies.

The multimedia content developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training program to train 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 during the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of Operating Room Nursing with extensive teaching experience.

*The content, which is developed entirely by professionals in the sector, will allow you to assimilate the learning through an innovative concept of telepractice, with which you will be able to observe the performance of the techniques on real patients.*

*The best teaching quality on the online market, in a state-of-the-art program, created to allow you to truly grow in your profession, from your own computer.*



# 02 Objectives

The main objective of this Advanced Master's Degree in Operating Room Nursing is to offer you a specialization with complete quality: the most complete syllabus, top-level teachers, a highly efficient methodology and a teaching staff made up of experts in the subject matter. A combination that will help you to achieve your goals in the simplest way possible and totally compatible with your professional and personal life.





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*This Advanced Master's Degree in Operating Room Nursing will allow you to achieve all your goals in this field of work, in only one specialization course and through a highly efficient and totally flexible program”*



## General Objectives

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- ♦ Gain up-to-date knowledge in providing nursing care to surgical patients during the entire surgical process, with the aim of improving the quality and safety of your nursing praxis both in surgery and the following period of rehabilitation. This is done by developing clinically effective interventions in the care provided within the surgery department in a hospital setting.
- ♦ 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 a comprehensive approach to the expert witness as a reference model to achieve expert-level 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.
- ♦ Encourage professional development through research as well as dynamic and current continuing training.



## Specific Objectives

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- ♦ Apply the scientific method as a way of developing diverse surgical procedures and routines, updating all your knowledge and practical skills in response to the new care trends within the surgical field.
- ♦ Implement different strategies to meet the requirements of new healthcare demands.
- ♦ Analyze the ethical aspects involved both in patient care and in research procedures related to surgical activity in the different stages of care.
- ♦ Analyze and implement new care models based on psychosocial factors involved in health problems, favoring a multidisciplinary approach and promoting patient participation in their own health care process. Applying these previous points for the benefit of the patient, the team and the institution.
- ♦ Prevent mistakes and accidents which could put the general objective of nursing professionals -the protection of the patient in the field of surgery- at risk.
- ♦ Establish a treatment with the patient and their family that goes beyond the simple application of nursing techniques, and to consider all aspects of the patient's condition as whole.
- ♦ Gain up to date knowledge on drug management procedures and patient control during anesthesia.
- ♦ Describe the role of the nurse in the integral care of a patient during the surgical process.
- ♦ Revise the key principles of surgical asepsis.
- ♦ Recognize and classify the general and specific surgical material and instruments in each speciality, based on their functionality.
- ♦ Analyze the inherent risks of surgery (biological, electric, etc.)
- ♦ Apply the necessary communication skills to care for a patient in an appropriate and personalized way.

- ♦ Design and plan nursing care for pre-, intra- and post-operative periods.
- ♦ Gain up to date knowledge on action protocols for surgery.
- ♦ Analyze the surgical process and identify the key aspects in order to achieve adequate quality control and resource management.
- ♦ Evaluate the importance of nursing records in the field of surgery and describe the necessary procedures for correctly implementing them.
- ♦ Review and incorporate the legal and ethical aspects in professional activity in the field of surgery.
- ♦ Explain expert nursing care related to the safety of a surgical patient.
- ♦ Identify the changes in the clinical situation of a surgical patient, acquiring skills in the initial assessment of a patient post-surgery.
- ♦ Describe the most common surgical situations in a hospital environment and the role of the nursing professional in these situations.
- ♦ 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.
- ♦ Acquire the necessary knowledge for each surgery about the anatomy of the area to be operated on, the necessary equipment, supplies and instruments, and the required anesthesia and positioning.
- ♦ Strengthen the specific training of perioperative nurses required in the different surgical specialties.
- ♦ Become highly qualified in microsurgery for free flap and reimplantation procedures.
- ♦ Learn the management and control of different types of breast implant in prosthetic breast reconstruction.
- ♦ Know the different lipofiling techniques required in each case.
- ♦ Apply knowledge of osteosynthesis in the performance of limb reimplantation.
- ♦ Master the techniques of debridement and graft placement in a burn patient.
- ♦ Evaluate the psychological state of the patients with gender identity problems and learn tools to alleviate stress in surgery related to this.
- ♦ Master the surgical technique in arthroscopy, as well as the positioning of the different devices and the layout of the operating room, which is very different from other surgeries in orthopedic and trauma surgery.
- ♦ Differentiate between cemented and uncemented arthroplasties and explain and perform the surgical cementation procedure.
- ♦ List the essential components for each type of prosthesis, according to the joint to be repaired/replaced, and verify the stock of implants before surgery.

- ♦ Be able to act efficiently and quickly in the event of eventualities such as periprosthetic fracture, bleeding, or improvised change of type of prosthesis or osteosynthesis material.
- ♦ Acquire the necessary knowledge to collaborate in surgeries with osteosynthesis.
- ♦ Know how to correctly apply the ischemia technique to the extremities for when it is needed in order to perform surgery.
- ♦ Explain the process of bone donation/reception and learn how the bone bank works.
- ♦ Manage the lavage system and spacer implantation technique when there is an infection in the joint.
- ♦ Know the risks of the frequent use of radiation in orthopedic and trauma surgery operating rooms and the measures to be taken to prevent them.
- ♦ 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 the 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.
- ♦ Differentiate between biological and mechanical valves and know what preparation each one requires.
- ♦ Become highly qualified in microsurgery and know how to handle autologous vascular grafts in aorto-coronary bypass surgery.
- ♦ Explain the correct manipulation of the different implants used in the interventions performed on the aorta.
- ♦ Manage emergency situations (cardiac rupture/cardiac tamponade/aortic dissection), having all the necessary material ready and collaborating with the rest of the team.
- ♦ Explain the technique for the placement of chest drains in pericardiectomy.
- ♦ Describe the use of leads and generators required for interventions in cardiac rhythm disorders (pacemakers and ICDs).
- ♦ Differentiate between and explain the use of different monitors, devices and systems needed for the placement and subsequent control of balloon counterpulsation and ventricular assist devices.
- ♦ Describe the role of the heart-lung machine in cardiac surgery and the skills of the perfusionist nurse in charge of its operation.
- ♦ List the prerequisites of a hospital to be able to house such a specialty.
- ♦ Correctly complete administrative documents for subsequent processing.
- ♦ Collect samples for later processing in the necessary sub-department.
- ♦ Describe the surgical material used in each intervention.
- ♦ Control the assembling and use of the specific equipment and devices used in each intervention.
- ♦ 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 respiratory apparatus.
- ♦ Create diagrams showing the relationship between the structures.
- ♦ Describe the use of each medication specific to this specialty.
- ♦ Differentiate tracheal stenosis with and without prosthetic implant, as well as the rest of prosthetic implants, and know their peculiarities.
- ♦ Explain the correct preparation and handling of the material to perform a rigid bronchoscopy.

- ♦ Explain the handling of mechanical and chemical pleurodesis.
- ♦ Prepare and describe the correct functioning of the thoracic drainage system.
- ♦ Differentiating between open and minimally invasive surgeries.
- ♦ Correctly prepare and label intraoperative and post-procedure specimens.
- ♦ Justify the need to treat a pathology with thoracic surgery.
- ♦ Describe the VATS technique.
- ♦ Differentiate between the clinical manifestations of each pathology.
- ♦ Differentiate between segmentectomy and lobectomy and know when and how to proceed in each case.
- ♦ Identify and manage the symptoms for programmed and emergency interventions early on.
- ♦ Anticipate which material is likely to be used in each surgery.
- ♦ Know the proper use and maintenance of different optical fibers used in surgery.
- ♦ Reorganize the 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 surgical and anesthetic complications that could arise during the surgery and the transfer of the patient afterwards.
- ♦ 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.
- ♦ Relay the necessary information to the Post-Surgical Recovery services nurse and/or ward nurse for continuity of care.
- ♦ List the nursing interventions to carry out.
- ♦ Confirm the results to be obtained after surgery.
- ♦ Have knowledge of anesthesia in thoracic surgery: systematics, pharmacology, devices likely to be used.
- ♦ Explain the handling of the different mechanical suture systems for anastomosis, vessel sealing and cutting forceps, and their peculiarities depending on whether they are used in laparoscopic or laparotomy surgeries.
- ♦ Know the generalities of any general surgery performed by laparoscopy and the characteristics of each of these interventions.
- ♦ Manage situations in which there are changes to the surgical plan, where nurses need the necessary skills to quickly switch from laparoscopic to laparotomy surgery and manage potential complications.
- ♦ Identify all the hemostasis material that should be available in a general surgery operating room to solve any eventuality.
- ♦ Describe radiofrequency techniques used to remove small tumors and manage the THD system in hemorrhoid surgery.
- ♦ Describe the handling of the probe indicating radioactivity in sentinel lymph node biopsy surgeries.
- ♦ Acquire the necessary skills to be able to carry out surgery in which intra-operative chemotherapy takes place, knowing the risks and precautions associated with this surgical technique.
- ♦ Learn the different types of specific anesthesia for ophthalmology (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 kits 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 its function in each type of surgery. Master the nasal endoscopic technique and the preparation of nasal packing or ocular occlusion in case of hemorrhage.
- ◆ Acquire the necessary skills to collaborate in cornea transplants, intrastromal rings and arcuate incisions with a laser.
- ◆ Describe the general aspects of any gynecologic surgery performed by laparoscopy and the characteristics of each of these interventions.
- ◆ Adequately handle samples/pieces extracted for subsequent analysis in pathological anatomy.
- ◆ Manage emergency situations that pose a vital risk for either the woman or the baby (ectopic pregnancy, emergency cesarean section, etc.)
- ◆ Control all the material that comes into contact with the tumor and know how to handle it, in order to avoid its dissemination, especially in open or laparotomy surgeries.
- ◆ Careful collection of gauze in vaginal surgeries and correct control of implanted meshes in pelvic floor repair.
- ◆ Explain the characteristics of different breast surgery and describe the management of the sentinel lymph node and implants in breast reconstruction.
- ◆ Acquire the necessary skills to collaborate with the rest of the team in both scheduled and emergency cesarean sections.

- ♦ Learn the surgical technique in limb amputation and handle the subsequent identification, management and transport.
- ♦ Acquire the necessary skills to perform peripheral access surgeries (vascular angioplasties, stenting, thrombectomies, etc.), and have all the necessary equipment in case an emergency laparotomy is required.
- ♦ Describe the stents and stent grafts required in most of the interventions, as well as the specific material for these surgeries.
- ♦ Become highly qualified in microsurgery, a technique necessary for the performance of any type of by-pass, and in the handling of the different vascular grafts.
- ♦ Explain the technique of a percutaneous injection of ultrasound-guided thrombin for pseudoaneurysm closure.
- ♦ Master the technique of arterio-venous fistula repair and subsequent care.
- ♦ Learn the different techniques for solving venous insufficiency.
- ♦ Efficiently collaborate with the rest of the team in moments of vital urgency, which are very often experienced by patients with vascular pathology.
- ♦ Master the surgical technique in temporomandibular joint arthroscopy, as well as the placement of the different devices and the layout of the operating room, which is very different from other maxillofacial surgeries.
- ♦ Acquire knowledge of osteosynthesis according to universal principles of A.O. and instrument interventions of maxillofacial fractures and orthognathic surgery.
- ♦ Become highly qualified in maxillofacial microsurgery for free flap and nerve grafts.
- ♦ Master the facial defect repair techniques required in each case.





- ♦ Efficiently collaborate in tracheostomy surgery, knowing the surgical technique and the material needed in order to anticipate potential complications.
- ♦ Know how to handle intraoperative specimens during surgeries involving facial, parotid and tongue lesions.
- ♦ Acquire skills to perform rhinoplasty surgery, as well as other nasal surgeries.
- ♦ Know how to handle intraoperative specimens during surgeries involving the thyroid and other neck interventions.
- ♦ Collaborate efficiently in laryngectomy surgery, and know the surgical technique perfectly in order to anticipate potential complications.
- ♦ Apply the knowledge acquired to collaborate in tracheotomy, whether emergency or programmed, as well as in interventions affecting the vocal cords.
- ♦ Provide psychological support and information to patients who in the immediate post-surgical period will have speech impairment, and sometimes also a tracheotomy with the care that this requires.
- ♦ Learn the importance of bleeding control in pharyngeal surgeries.
- ♦ Acquire the skills to perform endoscopic nasosinus surgery (CENS), as well as other nasal surgeries.
- ♦ Learn about the specific instruments used in ear surgery, implants and the use of the microscope.
- ♦ Acquire skills in the preparation of any of the surgeries performed via transurethral route, whether diagnostic, curative, or catheter placement/removal.
- ♦ Describe the general aspects of any urologic surgery performed by laparoscopy and the characteristics of each of these interventions.
- ♦ Manage and predict the potential complications in a nephrectomy or in any other urologic surgery.
- ♦ Learn how to collaborate with the rest of the team in kidney implantation.
- ♦ Explain the technique of the nephrostomy procedure, as well as its subsequent care and maintenance.

# 03 Skills

After having passed the assessments in the Advanced Master's Degree in Operating Room Nursing, the professional will have acquired the necessary skills to perform in this field, with the confidence and solvency of the best up to date scientific and technical training. This qualification will translate into a high-quality praxis that will have a direct impact on patient care and on the professional positioning of the student, who will become a professional figure of high value for any organization.





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*At the end of this Advanced Master's Degree in Operating Room Nursing you will be able to integrate each and every one of the aspects that you will learn in the specialization into your work, thanks to the help and guidance of the best experts in the online teaching panorama"*

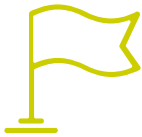


## Basic Skills

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- ♦ 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.
- ♦ 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 continuous learning of new information.
- ♦ Develop the capacity for critical analysis and research in your professional field.
- ♦ 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 continuous learning of new information.
- ♦ Develop the capacity for critical analysis and research in your professional field.





## Specific Skills

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- ♦ Explain and define the perioperative surgical process and the three stages involved.
- ♦ Define the skills and abilities of a nursing professional in surgery, internalizing what their qualities and aptitudes should be.
- ♦ Identify the different departments which are involved in the surgical process and their interrelation with other support services.
- ♦ Be aware of the importance of reciprocal information between patient/family and nursing professional throughout the 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 perform all nursing interventions, depending on the specific point in the surgical procedure.
- ♦ Learn how to properly take care of the patient/family, whether on the ward, in the operating room or in resuscitation.
- ♦ Learn the most common anesthetic techniques used in perioperative medicine, indications and complications.
- ♦ List the drugs frequently used in anesthetic procedures, their mechanism of action and side effects, knowing how to act according to the drug administered.
- ♦ Learn the different functions of the circulator and the instrumentalist within 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 patient transfers and positioning, ensuring patient comfort and safety at all times.
- ♦ Know how to communicate the necessary information about the patient to the nursing professional who will provide the follow-up care.
- ♦ Prepare the patient for discharge when the required care can be provided outside the hospital.
- ♦ Acquire the necessary knowledge for each surgery about the anatomy of the area to be operated on, the necessary equipment, supplies and instruments, and the required anesthesia and positioning.
- ♦ Describe the specific training of the nursing professional in the different surgical specialities.
- ♦ Become highly qualified in microsurgery for free flap and reimplantation procedures.
- ♦ 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 procedure.
- ♦ Know the different lipofiling techniques required in each case.
- ♦ Apply knowledge of osteosynthesis in the performance of limb reimplantation.
- ♦ Explain burn patient interventions, know how to implement specific techniques for debridement and grafting (whether skin or synthetic).
- ♦ Evaluate the psychological state of the patients with gender identity problems and learn tools to alleviate stress in surgery related to this.
- ♦ 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.
- ♦ Apply 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 donating bone to the bone bank and the receiving of such donations in patients who require surgery.
- ♦ Assess the psychological state of patients and develop relationship tools to help alleviate the stress involved in the surgical process.
- ♦ Identify the hospitals which provide a neurosurgery service.
- ♦ List the units which collaborate with the neurosurgery service.
- ♦ Explain the normal protocols in each department.
- ♦ Provide the necessary material for each surgical intervention.
- ♦ Summarize neurological anatomo-physiology.
- ♦ Justify the need for certain types of medications inside a neurosurgical operating room.
- ♦ Identify the pathologies susceptible to be treated in the neurosurgical operating room.
- ♦ Differentiate between programmed and urgent pathologies.
- ♦ Determine the human and material resources needed to carry out each surgery.
- ♦ Define the surgical position of each intervention.
- ♦ Relate the surgical technique of each intervention.
- ♦ Generate the intra-operative nursing care document and prepare the patient for admission to the ward.
- ♦ Elaborate a care plan using the intra-operative NANDA-NIC-NOC nomenclature.
- ♦ Acquire the necessary skills to handle heart valve implants (whether mechanical, biological or rings).
- ♦ Explain the role of nursing in microsurgery for coronary artery bypass grafting and the management of autologous vascular grafts required for this surgery.
- ♦ Differentiate the different types of implants that can be used in aortic surgery, as well as the care they require.
- ♦ Master the procedures of intervention in emergencies, where the patient's life is very compromised, to be able to act calmly and with control, having all the necessary equipment for these cases ready in advance.
- ♦ Master the procedures for total or partial surgical resection of the pericardium, including the technique for placement of thoracic drains.
- ♦ Control the use of leads and generators used in pacemaker or ICD implantation/removal.
- ♦ Explain intraoperative and postoperative management of balloon counterpulsation and ventricular assist monitors, devices and systems.
- ♦ Describe the competencies of the perfusionist nurse, and acquire a basic understanding of the function of the heart-lung machine, which is essential in most heart surgeries.
- ♦ 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 reinterventions), as well as the surgical technique to be followed.
- ♦ List the units which collaborate with the thoracic surgery service.
- ♦ Explain the normal protocols in each department.
- ♦ Provide the necessary material for each surgical intervention.
- ♦ Summarize the anatomo-physiology of the respiratory system.
- ♦ Justify the need for certain types of medications 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 devices, basic and specific instruments and describe the surgical techniques used.
- ♦ Identify chemical pleurodesis from mechanical pleurodesis, as well as the surgical technique to be followed.
- ♦ Assess the psychological state of patients and develop relationship tools to help alleviate the stress involved in the surgical process.

- ♦ Identify the hospitals which provide a thoracic surgery service.
- ♦ Determine the human and material resources needed to carry out each surgery.
- ♦ Define the surgical position of each intervention.
- ♦ Integrate anatomical knowledge to describe the surgical technique in each intervention.
- ♦ Generate the intraoperative nursing care document and prepare the patient for admission to the ward.
- ♦ Elaborate a care plan using the intraoperative NANDA-NIC-NOC nomenclature.
- ♦ 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 where there is a change of surgical plan (e.g 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, etc.) in laparoscopic surgeries.
- ♦ Identify the different types of hernia repair meshes.
- ♦ Address the management of the THD system for hemorrhoids.
- ♦ Describe the use of radio frequency techniques to eliminate small tumors.
- ♦ Describe the handling of the probe indicating radioactivity in sentinel lymph node biopsy surgeries.
- ♦ In emergency situations, prepare the material and instruments for hemostasis (different hemostatics, clamps, 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.
- ♦ Differentiate the types of specific anesthesia for ophthalmology: intracameral, topical, and retrobulbar according to the indication of each surgery.
- ♦ Gain up-to-date knowledge of the handling of phacoemulsification and vitrectomy devices and the preparation of kits of expendable material and irrigation serotherapy required for each type of surgery, in cataract and vitrectomy surgeries.
- ♦ Identify the types of ocular lenses that exist for each patient according to the pathology present.
- ♦ 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 in 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, and know how to prepare the required instrumental material to perform intravitreal injections.
- ♦ Identify the most frequently used drugs in ophthalmology surgery.
- ♦ Master the making of the ocular occlusion dressing.
- ♦ Acquire the necessary knowledge to perform laparoscopic surgery in gynecology, and learn the particularities of the interventions performed by this technique.
- ♦ Gain up-to-date knowledge of procedures for handling samples/pieces extracted for subsequent analysis in pathological anatomy.
- ♦ Assess the importance of prompt action in the event of ectopic pregnancy and emergency life-saving intervention.
- ♦ Control the instruments and material in contact with the tumor, so as not to spread it to adjacent areas in laparotomy procedures.
- ♦ Take special care in vaginal surgeries in the collection of gauze, and control of the implanted meshes in pelvic floor repair.
- ♦ Know the particularities of the different breast surgeries, especially the management of implants in breast reconstruction, and the control of sentinel lymph node biopsy.
- ♦ Know how to collaborate with the rest of the team in both scheduled and emergency cesarean sections, acquiring the necessary skills to do so

- ♦ Manage an amputated limb, including its identification, handling and transportation.
- ♦ Acquire the necessary skills to perform peripheral access surgeries (femoral, radial, etc.), as well as the management of stents and stent grafts required in these interventions.
- ♦ Master the particularities of microsurgery, a technique necessary for the performance of any type of bypass, and gain skills 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 arteriovenous fistulas, as well as in venous insufficiency repair surgeries.
- ♦ Efficiently collaborate with the rest of the team in moments of vital urgency, which are very often experienced by patients with vascular pathology.
- ♦ Explain the proper handling and placement of the different devices, basic and specific instruments, and to know the surgical technique in arthroscopy 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.
- ♦ Gain up-to-date knowledge of microsurgical procedures in maxillofacial reconstruction procedures with free flaps.
- ♦ Master the Coleman lipofiling and PRP (Platelet Rich Plasma) techniques for repair of facial defects required in each case.
- ♦ Know the different types of tracheostomy cannulas of different calibers and acquire the necessary skills to cooperate in tracheostomy interventions. This a complicated surgery that involves 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 cooperate in rhinoplasty procedures.
- ♦ Process intraoperative specimens, which are very frequent in most neck surgeries.
- ♦ Take part in a laryngectomy and subsequent tracheotomy, which is a complicated surgery involving many anatomical structures.
- ♦ Identify the different types of tracheostomy cannulas and learn how to prepare them prior to placement.
- ♦ Participate in any of the interventions that affect the vocal cords and help the patient with psychological support because 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 (FENS), minimally invasive surgical approach, as well as other nasal surgeries.
- ♦ Master the specific instruments used in ear surgery, implants and the use of the microscope.
- ♦ Prepare and collaborate 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.
- ♦ Prevent and control potential complications in 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.





“ A process which turns your effort into success, thanks to an online system which provides you with the most advanced online teaching methods, with images and high-resolution interactive videos that will give you a real idea of each topic of learning”

# 04

# Course Management

The teaching staff of this Advanced Master's Degree is one of its greatest assets. Chosen from among the best in the sector, our teachers are a group of renowned experts who know not only the theoretical aspects of this type of work, but also each and every one of its aspects and the different situations in which the professional may find themselves. Additionally, other recognized specialists participated in its design and preparation, which means that the program is developed in an interdisciplinary manner. A team of top-level professionals who will be your allies helping you to make the leap to the highest level of competence in your profession.





“

*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed”*



## Co-Direction



### Pazos Moreno, José Manuel

- ◆ Surgical Nurse, Outpatient Surgery Unit, Elche University General Hospital
- ◆ Former supervisor of the Surgical Area and ICU. (Outpatient Surgery Unit) of the General Hospital of Elda and the General University Hospital of Elche (17 years).
- ◆ Associate Professor of Nursing at the Faculty of Sciences of the University of Alicante and Collaborating Professor of Nursing at the Faculty of Health Sciences of the Cardinal Herrera CEU University of Elche.
- ◆ Director of the online degree in Nursing in the Surgical Area and Aftercare (Aula Salud).
- ◆ Member of the Nursing and Bioethics Teaching Committee at the Elche University General Hospital.
- ◆ Organizer, speaker, communicator and panel member at various National and International Congresses on topics related to the Surgical Field.
- ◆ Director of more than 200 (two hundred) Postgraduate Courses on Surgical Instrumentation and Sutures, organized by the Nursing Department of the University of Alicante and the Official College of Nursing of Alicante, among others.



### Guzmán Almagro, María Isabel

- ◆ Diploma in Nursing
- ◆ Master's Degree in Social Gerontology: Longevity, Health and Quality of Life
- ◆ Specialist Diploma in Accidents and Emergencies from the Complutense University of Madrid
- ◆ Master's Degree in Comprehensive Nursing Care in Critical and Emergency Situations in Adults.
- ◆ Surgical Unit Nurse at "La Paz" University Hospital. Madrid, Spain.



### **Bárzano Saiz, María Estela**

- ◆ Diploma in Nursing
- ◆ Diploma in Physiotherapy
- ◆ Master's Degree in Counselling by the San Camilo Health Humanization Center.
- ◆ Operating Room Nurse with many years of experience in Orthopedic Surgery and Traumatology, Plastic Surgery and General Surgery at La Paz University Hospital. Madrid, Spain



### **Alba López, Alicia**

- ◆ Diploma in Nursing
- ◆ Operating Room Nurse with many years of experience in Orthopedic Surgery and Traumatology, Plastic Surgery and General Surgery at La Paz University Hospital. Madrid, Spain.



## Professors

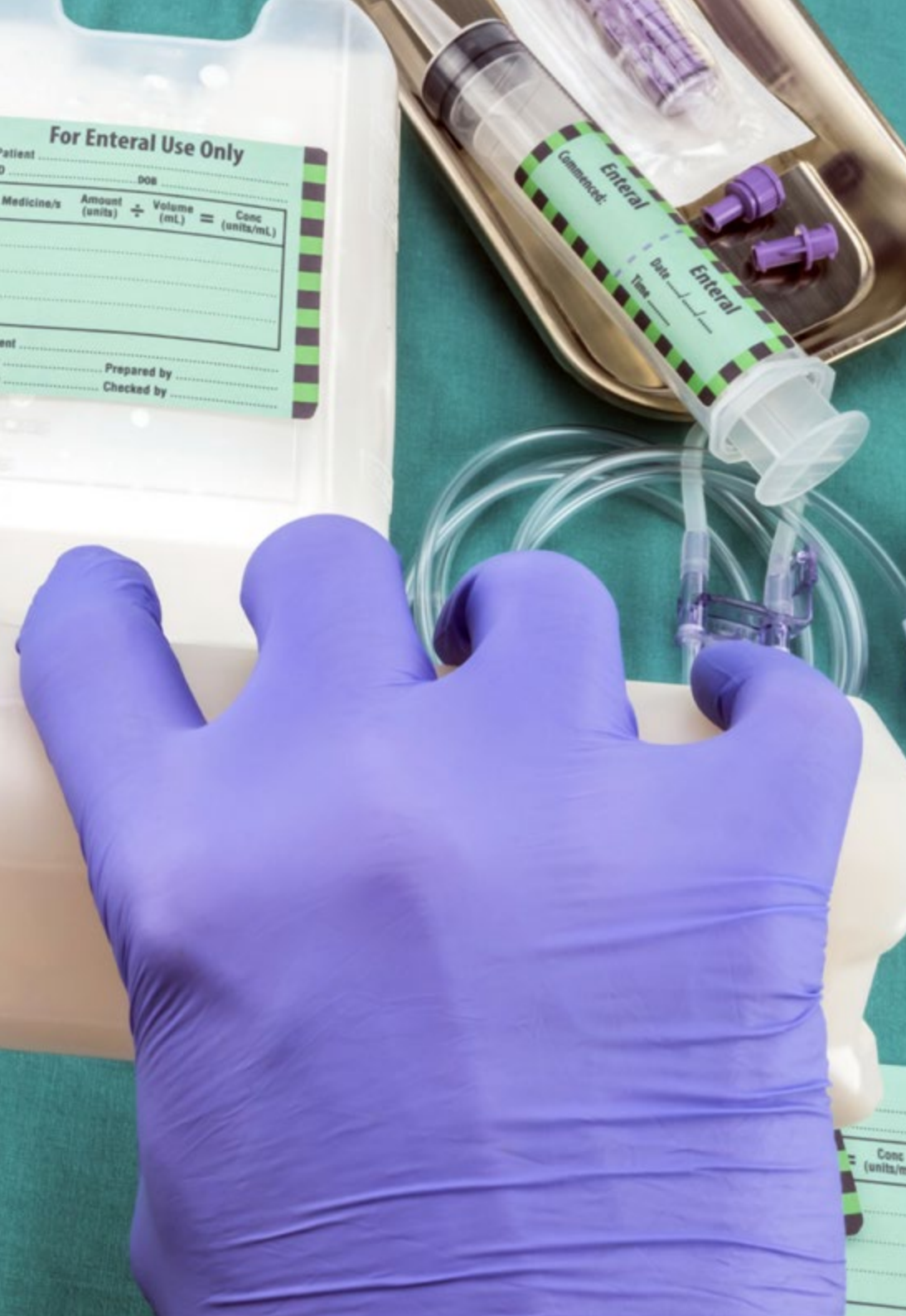
### Dr. Andreu Gálvez, Juan

- ◆ Medical Director of the Surgical Area of the Vinalopó Hospital in Elche, from 2010-present.
- ◆ PhD in Medicine and Surgery from the University of Valencia.
- ◆ Specialist in General and Digestive System Surgery University of Murcia, 1982
- ◆ Start-up (among others) of the H.G.U. Major Outpatient and Short Stay Surgery Unit. Elche (General Surgery)
- ◆ Professor, Organizer, speaker, communicator and panel member at various National and International Congresses on topics related to the Surgical Field.,

### Llamas Carrasco, María Jesús

- ◆ Degree in Law from the University of Alicante (1992).
- ◆ Currently head of the Legal Services of the Elche University General Hospital.
- ◆ Participant in congresses, courses and journals related to legal aspects of healthcare.
- ◆ Coordinator of courses related to legal health issues at the Valencian School of Health Studies (among others)
- ◆ Teacher in courses related to legal aspects of healthcare in the Valencian School of Healthcare Studies (among others).



**Pazos González, Francisco Javier**

- ◆ Diploma in Nursing
- ◆ Master's Degree in Nursing Care: specializing in accidents and emergencies.
- ◆ Surgical Nurse at Elche General University Hospital.
- ◆ Work experience in primary care and the emergency department at Elche General University Hospital.
- ◆ Currently studying a degree in Human Nutrition and Dietetics (3rd year).
- ◆ Courses studies (among others) "Surgical Instruments" and "Surgical Sutures" from the Nursing College of Alicante.
- ◆ Teaching collaborator at the Cardinal Herrera University CEU (surgical practice department).
- ◆ Collaborator in the design of distance learning courses for the "Aula Salud" company.

**Dr. Santos Fuster, Pilar**

- ◆ Degree in Medicine and Surgery from the University Alicante 1990
- ◆ Specialist in Anesthesiology and Resuscitation after a residency in the "Virgen de la Arrixaca" Hospital in Murcia 1995.
- ◆ Professional practice as Anesthetist in the Anesthesiology and Resuscitation Department at the Elche University General Hospital.
- ◆ Master's in Bioethics from the Valencian School of Health Studies, 2003-2004.
- ◆ Master's in Administration and Management of Health Services, 2012-2013.
- ◆ Professor of various courses related to the speciality of Anesthesiology and Resuscitation.
- ◆ Participation in scientific congresses and conferences as speaker, communicator and panel member.
- ◆ Research and publications in scientific papers.
- ◆ Member of the European and World Society for Airway Management 2002 and 2004.



# 05

# Structure and Content

The structure of this Advanced Master's Degree has been created in order to compile each and every one of the subjects that the professional in this area must master, in a broad and very specific syllabus. With an extensive and structured curriculum in areas of intervention, the student will learn the different theoretical and practical approaches and techniques necessary for the nursing activity in the operating room and the other departments involved. Learning that will materialize in mastering the techniques in a practical way. Always with a tutor and the support of exceptional teaching staff who have created the content of the course.





“

*This Advanced Master's Degree is a unique opportunity to achieve all the necessary knowledge on the area of Operating Room Nursing in just one specialist course. The most complete and intensive training that you can find”*

### Module 1. Surgical Nurses

- 1.1. Introduction for Students Learning Objectives
- 1.2. Historical Evolution of Surgical Nursing and "Modern" Surgery
- 1.3. Professional Nursing Characteristics of a Profession Correlation between Theory and Practice
- 1.4. Surgical Nursing Personal Qualities and/ or Behaviours for Nurses who Decide to Dedicate Themselves to the Surgical Field
- 1.5. Situations that May Weaken the Surgical Awareness of Surgical Nurses in the Surgical Field
- 1.6. Stress Control in the Operating Room
- 1.7. Comparison between Different Models of Surgical Nursing in the Different Health Systems in Spain and Europe
- 1.8. Current Situation of Surgical Nursing and Predicted Developments
- 1.9. Information on "Medical Personnel" Considerations

### Module 2. Architecture, Installations and Equipment in the Surgical Department

- 2.1. Structure and Location
- 2.2. Design Principles
- 2.3. Types of Design
- 2.4. Distribution of Space
- 2.5. Characteristics of the Operating Room
- 2.6. "Minimal" and "Specific" Surgical Equipment for Certain Operations: Electrosurgery, Pneumatic Tourniquet, Endoscopic Techniques and Laser Surgery

### Module 3. Concept of Asepsis and Infection Control

- 3.1. Brief Historical Introduction
- 3.2. Various Definitions
- 3.3. Infection and How to Control it
- 3.4. Sterile Technique Necessity
- 3.5. Sterile Technique Principles and Examples of its Application





#### Module 4. Sterilization and Disinfection Definitions

- 4.1. Central Services of Sterilization
- 4.2. Methods of Sterilization
- 4.3. Sterilization Controls
- 4.4. Preparation of Materials to Sterilize
- 4.5. Maintenance of Sterile Material Stocks
- 4.6. Biological Risks not Associated with the Sterilization Process

#### Module 5. Preoperative Preparation of the Surgical Patient

- 5.1. Importance of Communication with the Patient
- 5.2. Preoperative Psychological Considerations
- 5.3. Patient Needs
- 5.4. Possible Psychological Responses of the Patient
- 5.5. Acceptance of Intervention Informed Consent
- 5.6. Preparation and Physical Examination of the Patient to Undergo Surgery
- 5.7. Nutritional Needs
- 5.8. Special Considerations: diabetic, obese, pediatric, geriatric and terminal patients, patients allergic to latex etc.

#### Module 6. Necessities in the Operating Room

- 6.1. Economic Use of Materials and Equipment
- 6.2. Role of the Surgical Nurse Different Roles during the Different Phases of Surgical Intervention (preoperative, intraoperative and post operative procedures)
- 6.3. Other Members of the Operating Room Team The Importance of Teamwork
- 6.4. Circulation in the Surgical Area and the Operating Room Itself
- 6.5. Surgical Scrubbing and Donning of Sterile Gowns and Gloves
- 6.6. Preparation of Instrument Tables
- 6.7. The Surgical Table: positions of the patient according to the surgical technique used
- 6.8. Preparation of Surgical Area
- 6.9. Activities During the Operation
- 6.10. Activities During the Closure of a Patient

- 6.11. Economics in "Time and Motion"
- 6.12. Finishing the Intervention: leaving the surgical area, collection of instruments and cleaning the operating room
- 6.13. Selective Collection of Waste and Residues
- 6.14. Collection, Conditioning and Shipment of Samples for Anatomopathological Study
- 6.15. Risks and Precautions for Intraoperative Radiation Exposure
- 6.16. Latex Free Surgery

#### Module 7. Surgical Instruments

- 7.1. Surgical Instruments Care and Management of Instruments
- 7.2. Textile, Disposable and Prosthetic Materials
- 7.3. General Aspects and Instrument Techniques Surgical Specialities
- 7.4. "Silent" Instruments
- 7.5. Role of Nurses in New Technologies
- 7.6. Management of Different Surgical Instruments: basic material, cutting and/or semi-cutting, microsurgery, ophthalmic, lenses, air and/or battery and electric
- 7.7. Cleaning of Instruments Prior to Referral to Sterilization

#### Module 8. Surgical Sutures

- 8.1. Definition of a Suture
- 8.2. Historical Evolution
- 8.3. Classification and Characteristics of Suture Thread
- 8.4. Surgical Needles
- 8.5. Anatomy of a Surgical Needle
- 8.6. Assembly of a Surgical Needle
- 8.7. Practical Aspects of Use
- 8.8. Techniques and Indications for Suturing Tissue
- 8.9. Removing Surgical Sutures: equipment, material, procedure and final considerations

## Module 9. Anesthesia

- 9.1. What is Anesthesia?
- 9.2. Evolution of Current Concepts of Anesthesia
- 9.3. Patient Safety in Anesthesia
- 9.4. Pre-anesthetic Consultation
- 9.5. Apparatus to Support Anesthetic Control
- 9.6. Surgical Patient Monitoring
- 9.7. Nursing Airway Management
- 9.8. Access, Management and Maintenance of Airway Intubation and Extubation
- 9.9. Mechanical Ventilation
- 9.10. Most Common Anesthetic Agents (drugs and gases). Fluid Therapy, Blood and Blood Derivatives
- 9.12. Surgical Patient Positioning in Anesthesia
- 9.13. Anesthetic and Analgesic Techniques
- 9.14. General Anesthesia
- 9.15. Locoregional Anesthetic: spinal, epidural and regional anesthesia
- 9.16. Sedation
- 9.17. The Crash Cart Defibrillation

## Module 10. PACU (Post-Anesthesia Care Unit)

- 10.1. Admission of Patient to the Unit
- 10.2. Monitoring
- 10.3. Possible Complications
- 10.4. Criteria for Discharge

## Module 11. Communications and Human Relations Related to the Legal Field

- 11.1. Rules and Methods of Security The *Checklist*
- 11.2. Legal and Ethical Problems in Surgical Nursing Professional Practice The Importance of Nursing Records
- 11.3. Examples of Ethical Legal Situations Which Have Been the Subject of Several Injunctions

## Module 12. Evidence-Based Nursing

- 12.1. Recovery of Quality Information Specializing in Health Sciences
  - 12.1.1. Understanding Different Information Sources: general searches (UpToDate), databases (PubMed, Cinahl) and Clearing house of Clinical Practice Guidelines
  - 12.1.2. Design of Search Strategies with Subject Headings (MeSH), Free Language Terms and Boolean Operator Algebra. PICO Question (Patient, Intervention, Comparison, Outcome)
  - 12.1.3. Refining Search Results: methodological filters
  - 12.1.4. Creation of Bibliographic Alerts
- 12.2. Bibliographic Reference Management
  - 12.2.1. Importing of References Directly from Databases (PubMed, Cinahl)
  - 12.2.2. Extraction of Metadata in PDFs
  - 12.2.3. Use of Tags or Metatags to Classify the Bibliography
  - 12.2.4. Including References in the Text (Word) Vancouver Style
- 12.3. Critical Reading on Research Results
  - 12.3.1. Quantitative Research Designs (observational, quasiexperimental, experimental) Interpretation of Data and Techniques to Control Reliability, Validity and Scientific Rigor
  - 12.3.2. Qualitative Research Designs and Identification of the Social and Cultural Components of Health and Illness. Individual Results and Populations. Clinical, Economic and Satisfaction Outcomes
  - 12.3.3. Instruments for Critical Reading: AGREE Instrument
- 12.4. Reaction to Articles with a Scientific Structure and Publication of Results with an Impact Factor in Journals
  - 12.4.1. Normalized Structure of a Scientific Article
  - 12.4.2. Open Access Policy and Protocol for Publishing an Article
  - 12.4.3. Digital Autonomy in Public Participation (Blogs and Social Networks). Digital Identity and Privacy Online
  - 12.4.4. Intellectual Property, Licences and Symbols Reflecting the Attribution and Acknowledgment of Authorship of Works in Different Media: Text, Images and Video

**Module 13. Perioperative Surgical Process**

- 13.1. Definition of Perioperative Surgical Process
  - 13.1.1. Perioperative Nurse
  - 13.1.2. Importance of Information Between the Patient/ Family and the Healthcare Team
  - 13.1.3. Control Anxiety in a Patient
- 13.2. Perioperative Surgical Process
  - 13.2.1. Recovery Room
  - 13.2.2. Preoperative Nursing Interventions
    - 13.2.2.1. Welcoming the Patient/ Family
    - 13.2.2.2. Preparing the Patient for Surgery
    - 13.2.2.3. Nursing Measures in the Immediate Preoperative Period
    - 13.2.2.4. Transferring the Patient to the Operating Room
- 13.3. Intraoperative Surgical Process
  - 13.3.1. Surgical Area
  - 13.3.2. Different Anesthetic Techniques
  - 13.3.3. Most Commonly Used Drugs
  - 13.3.4. Nursing Interventions Before the Patient enters the Operating Room
    - 13.3.4.1. Welcoming the Patient in the Pre-Anesthesia Room (Before the Operating Room)
    - 13.3.4.2. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse
  - 13.3.5. Nursing Interventions in the Operating Room
    - 13.3.5.1. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse
  - 13.3.6. Potential Intraoperative Complications
  - 13.3.7. Transfer of the Patient to the Recovery Unit
- 13.4. Postoperative Surgical Process
  - 13.4.1. Concept of Recovery Unit
  - 13.4.2. Nursing Interventions
    - 13.4.2.1. In the Immediate Postoperative Period
    - 13.4.2.1. In the Postoperative Period
  - 13.4.3. Potential Post-Operative Complications
  - 13.4.4. Transfer of the Patient to the Ward Unit
  - 13.4.5. Postoperative Care in the Ward Unit



## Module 14. Plastic Surgery

- 14.1. Breast Surgery
  - 14.1.1. Breast Reconstruction/Remodeling
    - 14.1.1.1. With Autologous Flap (Microsurgery)
      - 14.1.1.1.1. Free: DIEP, SGAP y Gracilis
      - 14.1.1.1.2. Pediculated: Broad Back
    - 14.1.1.2. With Breast Prosthesis Expander, Replacement of Expander by Prosthesis
  - 14.1.2. Breast Reduction
  - 14.1.3. Mastopexy
  - 14.1.4. Areola Nipple Complex
- 14.2. Liposuction and Autologous Fat Filling/Lipofiling
  - 14.2.1. Manual
  - 14.2.2. With Liposuctor
  - 14.2.3. Different Techniques of Lipofilling Coleman, Revolver, Puregraft
- 14.3. Free Flaps for Loss of Substance in Lower Limbs
  - 14.3.1. ALT
  - 14.3.2. Vascularized Fibula
  - 14.3.3. Submental Lymph Node Flap for Lymphedema
  - 14.3.4. Broad Back
- 14.4. Burns
  - 14.4.1. Debridement
  - 14.4.2. Skin Grafts
  - 14.4.3. Synthetic Grafts
- 14.5. Plasties
  - 14.5.1. Abdominoplasty
  - 14.5.2. Otoplasty
  - 14.5.3. Rhinoplasty
- 14.6. Reimplantation and Limb Transplant
- 14.7. Gender Identity Disorder
  - 14.7.1. Change from Man to Woman
  - 14.7.2. Change from Woman to Man

## Module 15. Orthopedic Surgery and Traumatology

- 15.1. Characteristics of Orthopedic and Trauma Surgery
  - 15.1.1. Specific Aspects to Consider in Each Surgery
    - 15.1.1.1. Anatomical Review in the Different Intervention Areas
    - 15.1.1.2. Apparatus, Expendable Material and Instruments
    - 15.1.1.3. Anesthesia of Choice
    - 15.1.1.4. Patient positioning
    - 15.1.1.5. Surgical Care of the Patient
  - 15.1.2. Specific Nursing Training in Traumatology
    - 15.1.2.1. Ischemia
    - 15.1.2.2. X-Ray-Dosimeter
    - 15.1.2.3. Intraoperative Blood Salvage
    - 15.1.2.4. Bone Deficit Repair
      - 15.1.2.4.1. Autologous: Iliac Crest Bone Graft Harvesting
      - 15.1.2.4.2. Allograft: Bone Bank
      - 15.1.2.4.3. Bone Substitute
- 15.2. Primary Prosthesis in Upper Limbs and Cementation
  - 15.2.1. Shoulder Arthroplasty Anatomical and Inverted
  - 15.2.2. Elbow Arthroplasty
  - 15.2.3. Wrist Arthroplasty
  - 15.2.4. Metacarpal Arthroplasty
- 15.3. Primary Prosthesis of Lower Limbs
  - 15.3.1. Partial Hip Prosthesis
  - 15.3.2. Total Hip Prosthesis
  - 15.3.3. Total Knee Prosthesis
  - 15.3.4. Debridement, Surgical Lavage and Placement of Spacers in Infectious Processes
- 15.4. Replacement of Primary Prostheses, Surgical Lavage and Spacers
- 15.5. Osteosynthesis 1: Consolidation, Reduction and Stability
- 15.6. Osteosynthesis 2: Fracture Fixation
- 15.7. Osteosynthesis 3: Peri-implant Osteosynthesis, Removal of Osteosynthesis Material and O-ARM

- 15.8. Osteosynthesis in Axial and Polytraumatized Skeleton
- 15.9. Arthroscopy of Joints and Repair of Tendon Structures
  - 15.9.1. Shoulder
  - 15.9.2. Knee
    - 15.9.2.1. Meniscus
    - 15.9.2.2. Ligamentoplasty
  - 15.9.3. Wrist
  - 15.9.4. Carpal Tunnel Unroofing
  - 15.9.5. Dupuytren
  - 15.9.6. Tendon Transpositions
- 15.10. Tumor Surgery and Experimental Surgery
  - 15.10.1. Stem Cell Procurement and Injection for Necrosis and Pseudarthrosis Processes
  - 15.10.2. Resection and Reconstruction
  - 15.10.3. Tailor-Made Tumor Prostheses

## Module 16. Neurosurgery

- 16.1. General aspects
  - 16.1.1. Structure and Organisation of the Neurosurgery Operating Room
  - 16.1.2. Equipment and Material Specific to the Neurosurgery Specialty
    - 16.1.2.1. Expendable Material
    - 16.1.2.2. Non-Expendable Material
      - 16.1.2.2.1. Specific Instruments Tools, Separators and Headers
      - 16.1.2.2.2. Devices
  - 16.1.3. Specific Sutures
  - 16.1.4. Specific Drugs
- 16.2. Anatomophysiology and Pathologies to be Treated
  - 16.2.1. Bone Anatomy: Skull and Spinal Column
  - 16.2.2. Structural and Functional Neuroanatomy
  - 16.2.3. From a Structural Point of View
    - 16.2.3.1. Nervous System, Microscopic Anatomy: Neurons and Neuroglia
    - 16.2.3.2. Central Nervous System: Forebrain, Midbrain and Hindbrain
    - 16.2.3.3. Peripheral Nervous System: Spinal Nerves, Nerve Plexuses and Cranial Nerves
    - 16.2.3.4. Sympathetic and Parasympathetic Autonomic Nervous System
- 16.2.4. From a Structural Point of View
  - 16.2.4.1. Function of the Nervous System
- 16.3. Skull
  - 16.3.1. Craniotomy
    - 16.3.1.1. Frontal
    - 16.3.1.2. Parietal
    - 16.3.1.3. Temporal
  - 16.3.2. Craniectomy
    - 16.3.2.1. Frontal
    - 16.3.2.2. Parietal
    - 16.3.2.3. Temporal
    - 16.3.2.4. Posterior Fossa
  - 16.3.3. Trepano
    - 16.3.3.1. Ventricular Drainage
    - 16.3.3.2. Evacuation of Hematoma
    - 16.3.3.3. PIC Sensor Implantation
  - 16.3.4. Tripano-Valve
    - 16.3.4.1. Ventriculo-Peritoneal Drainage
    - 16.3.4.2. Ventriculo-Atrial Drainage
    - 16.3.4.3. Stereotactic Biopsy
    - 16.3.4.4. Endoscopic Transsphenoidal Surgery
    - 16.3.4.5. Ventriculostomy
- 16.4. Spine
  - 16.4.1. Cervical
    - 16.4.1.1. Anterior:
      - 16.4.1.1.1. Microdiscectomy With or Without Cervical Cage
      - 16.4.1.1.2. Corpectomy
    - 16.4.1.2. Posterior
      - 16.4.1.2.1. Laminectomy With or Without Arthrodesis
      - 16.4.1.2.2. Hemilaminectomy With or Without Arthrodesis
      - 16.4.1.2.3. Laminoplasty
    - 16.4.1.3. Dorsal: Kaneda



- 16.4.2. Lumbar
  - 16.4.2.1. Laminectomy With or Without Arthrodesis
  - 16.4.2.2. Hemilaminectomy With or Without Arthrodesis
  - 16.4.2.3. O-Arm Interventions
  - 16.4.2.4. Vertebroplasty
  - 16.4.2.5. Kyphoplasty
- 16.5. Nerves
  - 16.5.1. Decompression
    - 16.5.1.1. Brachial Plexus
    - 16.5.1.2. Median and Radial Nerve Carpal Tunnel
    - 16.5.1.3. Ulnar Nerve
    - 16.5.1.4. Sciatic Nerve
  - 16.5.2. Nerve Transposition
- 16.6. Functional Neurosurgery
  - 16.6.1. Chronic Pain
    - 16.6.1.1. Spinal Electrodes
    - 16.6.1.2. Cortical Electrodes
    - 16.6.1.3. Deep Electrodes
    - 16.6.1.4. Peripheral Electrodes
    - 16.6.1.5. Spinal Ganglion Electrodes
  - 16.6.2. Spasticity
  - 16.6.3. Deep Brain Stimulation

## Module 17. Heart Surgery

- 17.1. Characteristics of Heart Surgery
  - 17.1.1. Specific Aspects to Consider in Each Surgery
    - 17.1.1.1. Anatomical Review in the Different Intervention Areas
    - 17.1.1.2. Apparatus, Expendable Material and Instruments
    - 17.1.1.3. Anesthesia of Choice
    - 17.1.1.4. Patient positioning
    - 17.1.1.5. Surgical Care of the Patient
  - 17.1.2. Specific Nursing Training in Heart Surgery

- 17.2. Anatomophysiology
  - 17.2.1. Cardiac Anatomy
    - 17.2.1.1. Heart Wall
    - 17.2.1.2. Chambers
    - 17.2.1.3. Valves
    - 17.2.1.4. Cardiac Vascularization
  - 17.2.2. Cardiac Physiology
    - 17.2.2.1. Cardiac Cycle Major and Minor Circulation
    - 17.2.2.2. Fundamental Aspects of the Myocardial Cell
    - 17.2.2.3. Cardiac Conduction System
    - 17.2.2.4. Mechanism of Cardiac Contraction
- 17.3. Valvular Surgery
  - 17.3.1. Valvular Substitution and Reparation
    - 17.3.1.1. Aortic Valve
    - 17.3.1.2. Mitral Valve
    - 17.3.1.3. Mitral Plasty
    - 17.3.1.4. Tricuspid Annuloplasty
- 17.4. Coronary Surgery
  - 17.4.1. Obstructive Coronary Artery Disease
  - 17.4.2. AMI
  - 17.4.3. Unstable Angina
  - 17.4.4. Coronary Artery Bypass
- 17.5. Reconstructive Surgeries for Cardiac Rhythm Disturbances
  - 17.5.1. Atrial-Ventricular Arrhythmias
  - 17.5.2. Lethal Atrial-Ventricular Arrhythmias
  - 17.5.3. Implantation or Removal of Pacemakers
  - 17.5.4. ICD Implantation/Removal
  - 17.5.5. Dysfunction and/or Infection of Pacemaker or Automatic Implantable Defibrillator System
- 17.6. Surgery in Adults with Congenital Problems
  - 17.6.1. Pulmonary Valve Failure
  - 17.6.2. Bicuspid Aortic Valve

- 17.7. Other Surgery
  - 17.7.1. Aneurysm and/or Dissection of Ascending Aorta with Aortic Root Dilatation (Involvement of Coronary Ostium) Without Diseased Aortic Valve
  - 17.7.2. Aneurysm and/or Dissection of Ascending Aorta with Aortic Root Dilatation (Involvement of Coronary Ostium) With Diseased Aortic Valve
  - 17.7.3. Endocarditis with Aortic and Mitral Valve Involvement
  - 17.7.4. Ascending Aorta Aneurysm
  - 17.7.5. Chronic Pericardial Inflammation
  - 17.7.6. Interatrial or Interventricular Communication
  - 17.7.7. Pump Failure/Cardiogenic Shock
  - 17.7.8. Interventions in the Aorta
    - 17.7.8.1. David Procedure
    - 17.7.8.2. Mitral-Aortic David Procedure
    - 17.7.8.3. Bentall Procedure
    - 17.7.8.4. Ascending Aorta Replacement
- 17.8. Emergency Interventions
  - 17.8.1. Cardiac Rupture
  - 17.8.2. Cardiac Tamponade
  - 17.8.3. Aorta Dissection
  - 17.8.4. Pericardiectomy.
- 17.9. Balloon Counterpulsation and Ventricular Assist Device Management
- 17.10. Heart-Lung Machine

## Module 18. General Surgery

- 18.1. Surgeries Performed by Laparotomy
  - 18.1.1. Colon and Rectum
  - 18.1.2. Abdominal Wall
  - 18.1.3. Oesophageal
  - 18.1.4. Stomach.
  - 18.1.5. Small Intestine
  - 18.1.6. Gall Bladder
  - 18.1.7. Pancreas
  - 18.1.8. Liver
  - 18.1.9. Spleen

- 18.2. Exploratory and Restorative Laparoscopic Surgery
- 18.3. Proctologic Surgery
  - 18.3.1. Hemorrhoidectomy
  - 18.3.2. Drainage of Abscesses
  - 18.3.3. Lateral Sphincterotomy
  - 18.3.4. Pilonidal Cystectomy
  - 18.3.5. Pacemaker Implant for Incontinence/Constipation
- 18.4. Breast Surgery
  - 18.4.1. Mastectomy
  - 18.4.2. Sentinel Lymph Node
- 18.5. Endocrine Surgery
  - 18.5.1. Thyroidectomy
  - 18.5.2. Parathyroidectomy
- 18.6. HIPEC: Exhaustive Surgery of Intraperitoneal Carcinomatosis in Hyperthermia
  - 18.6.1. Benefits for the Patient
  - 18.6.2. Precautions
  - 18.6.3. Preoperative Care
  - 18.6.4. Personal Requirements
  - 18.6.5. Procedure

## Module 19. Thoracic Surgery

- 19.1. Characteristics of Thoracic Surgery
  - 19.1.1. Structure and Organisation of the Neurosurgery Operating Room
  - 19.1.2. Equipment and Materials
    - 19.1.2.1. Expendable Material
    - 19.1.2.2. Non-Expendable Material
      - 19.1.2.2.1. Specific Instruments: Tools, Separators
      - 19.1.2.2.2. Devices
  - 19.1.3. Specific Sutures
  - 19.1.4. Specific Drugs

- 19.2. Anatomophysiology
  - 19.2.1. Upper Respiratory Tract
    - 19.2.1.1. Nasal Fossa
    - 19.2.1.2. Pharynx
    - 19.2.1.3. Larynx
  - 19.2.2. Lower Respiratory Tract
    - 19.2.2.1. Trachea.
    - 19.2.2.2. Lungs
    - 19.2.2.3. Muscles of the Thoracoabdominal Wall
    - 19.2.2.4. Vessels and Nerves
    - 19.2.2.5. Thoracic Cavity
  - 19.2.3. Respiratory Mechanism
  - 19.2.4. Respiratory Functional Examination Concepts
  - 19.2.5. Gas Pressures Exchange Assessments
- 19.3. Tracheal Surgery
  - 19.3.1. Rigid Bronchoscopy (with/without Prosthetic Implant) + Tracheal Canal Dilatation
  - 19.3.2. Open Surgery with Tumor Resection and/or Secondary Tracheal Anastomosis
- 19.4. Pulmonary Surgery (Open and Closed)
  - 19.4.1. Extirpation of Bullae and/or Pleurectomy With/Without Mechanical or Chemical Pleurodesis
  - 19.4.2. Open Segmentectomy
  - 19.4.3. Segmentectomy by Videothoracoscopy
  - 19.4.4. Open Lobectomy (Thoracotomy)
  - 19.4.5. Closed Lobectomy (by VATS or Minimally Invasive Surgery)
- 19.5. Other Surgery
  - 19.5.1. Bilateral Sympathectomy by Videothoracoscopy
  - 19.5.2. Thoracic Cavity Correction and Osteosynthesis
  - 19.5.3. Chest Tube Insertion

## Module 20. Ophthalmology

- 20.1. Characteristics of Ophthalmology
  - 20.1.1. Specific Aspects to Consider in Each Surgery
    - 20.1.1.1. Anatomical Review in the Different Intervention Areas
    - 20.1.1.2. Apparatus, Expendable Material and Instruments
    - 20.1.1.3. Anesthesia of Choice
    - 20.1.1.4. Patient positioning
    - 20.1.1.5. Surgical Care of the Patient
  - 20.1.2. Specific Training for Operating Room Nurses in Ophthalmology
- 20.2. Cataracts
  - 20.2.1. Phakectomy and Intraocular Lens Placement
- 20.3. Retina Pathology
  - 20.3.1. Anterior and Posterior Vitrectomy
  - 20.3.2. Explantia
  - 20.3.3. Cryocoagulation
  - 20.3.4. Retinoblastoma
  - 20.3.5. Brachytherapy
  - 20.3.6. Scleral Buckling
  - 20.3.7. Intravitreal Injection
- 20.4. Cornea Pathology
  - 20.4.1. Cornea Transplant
    - 20.4.1.1. Lamellar, Penetrating
    - 20.4.1.2. Amniotic Membrane Transplant with Femtosecond Laser
  - 20.4.2. Intrastromal Femtosecond Laser Rings for Keratoconus
  - 20.4.3. Femtosecond Laser Arcuate
- 20.5. Oculoplasties
  - 20.5.1. Dacryocystorhinostomy
  - 20.5.2. Pterygium Exeresis
  - 20.5.3. Exeresis of Chalation
- 20.6. Trabeculectomy for Glaucoma

**Module 21. Gynecology and Obstetrics Surgery**

- 21.1. Laparoscopic Interventions
  - 21.1.1. Ovaries
    - 21.1.1.1. Resection of Ovarian Cyst or Tumor
    - 21.1.1.2. Oophorectomy
    - 21.1.1.3. Oosphorostomy
  - 21.1.2. Fallopian Tube
    - 21.1.2.1. Salpingectomy
    - 21.1.2.2. Fallopian Tube Section and/or Ligation
    - 21.1.2.3. Ectopic Pregnancy
  - 21.1.3. Uterus
    - 21.1.3.1. Hysterectomy
    - 21.1.3.2. Myomectomy
    - 21.1.3.3. Pelvic and Para-Aortic Lymph
    - 21.1.3.4. Staging
    - 21.1.3.5. Colposacropexy
    - 21.1.3.6. Deep Endometriosis
- 21.2. Laparotomy Interventions
  - 21.2.1. Hysterectomy
  - 21.2.2. Myomectomy
  - 21.2.3. Cytoreductor
  - 21.2.4. Pelvic Exanteration
  - 21.2.5. Pelvic and Para-Aortic Lymph
- 21.3. Interventions Performed Through the Vagina
  - 21.3.1. Transvaginal
    - 21.3.1.1. Curettage
    - 21.3.1.2. Anchoring
    - 21.3.1.3. Conization
    - 21.3.1.4. Bartholin/Fistula Drainage
    - 21.3.1.5. Tears
    - 21.3.1.6. Vaginal Hysterectomy
    - 21.3.1.7. Colporrhaphy/Colpocleisis/Colpectomy
    - 21.3.1.8. Cervical Amputation

- 21.3.2. Pelvic Floor: Meshes
- 21.3.3. Hysteroscopies
  - 21.3.3.1. Diagnosis
  - 21.3.3.2. Polyps
  - 21.3.3.3. Septum Resection
- 21.4. Breast Interventions
  - 21.4.1. Mastitis
  - 21.4.2. Biopsy of Sentinel Lymph Node
  - 21.4.3. Lymphadenectomy
  - 21.4.4. Tumorectomy
  - 21.4.5. Mastectomy
  - 21.4.6. Breast Reconstruction with Prosthesis or Expander
- 21.5. Pregnant Woman
  - 21.5.1. Planned Cesarean
  - 21.5.2. Emergency Cesarean
  - 21.5.3. Obstetric Forceps
- 21.6. Fetal Surgery

**Module 22. Vascular Surgery**

- 22.1. Arterial Angioplasties (With or Without Vascular Stent Placement)
- 22.2. Vascular Endoprosthesis (Thoracic Aorta/Abdominal Aorta)
- 22.3. Carotid Endarterectomy
- 22.4. Bypass (With Prosthesis, with Vein or in Situ)
  - 22.4.1. Carotid Artery
  - 22.4.2. Axillary-Bifemoral
  - 22.4.3. Ilio-Femoral
  - 22.4.4. Femoro-Femoral
  - 22.4.5. Femoropopliteal
  - 22.4.6. Femoro-Distal
  - 22.4.7. Aorto-Bifemoral

- 22.5. Thrombectomy/Embolectomy for Ischemia of Upper or Lower Limb
  - 22.5.1. Pseudoaneurysm with Ultrasound-Guided Percutaneous Thrombin Injection
- 22.6. Arteriovenous Fistula
  - 22.6.1. Fistula Implantation
  - 22.6.2. Ligation of Collateral Branches
- 22.7. Venous Insufficiency-Varicose Veins
  - 22.7.1. Safenectomy
  - 22.7.2. Phlebectomy
  - 22.7.3. Phleboscclerosis
- 22.8. Amputations
  - 22.8.1. Supracondilea
  - 22.8.2. Infracondilea
  - 22.8.3. Transmetatarsal
  - 22.8.4. Phalangeal
- 22.9. Excision of Vascular Malformations

## Module 23. Maxillofacial

- 23.1. Mandible
  - 23.1.1. Orthognathic Surgery
  - 23.1.2. Arthroscopy of the Temporomandibular Joint
- 23.2. Reduction and Osteosynthesis of Maxillofacial Fractures
  - 23.2.1. Orbit fracture
  - 23.2.2. Fracture of the Middle Third of the Face
  - 23.2.3. Maxillary or Malar Fracture
  - 23.2.4. Mandibular Fracture
- 23.3. Facial
  - 23.3.1. Parotidectomy
  - 23.3.2. Rhinoplasty
  - 23.3.3. Excision of Cutaneous Facial Lesions With or Without Local Flap
  - 23.3.4. Repair of Facial Defects (Coleman Technique, Platelet Rich Plasma Technique)

- 23.4. Oral
  - 23.4.1. Laser Removal of Lingual Tumor
  - 23.4.2. Tooth Extraction
- 23.5. Surgical Approach to Maxillofacial Abscesses
- 23.6. Tracheostomy

## Module 24. Otorhinolaryngology

- 24.1. Characteristics of Otorhinolaryngology Surgery
  - 24.1.1. Specific Aspects to Consider in Each Surgery
    - 24.1.1.1. Anatomical Review in the Different Intervention Areas
    - 24.1.1.2. Apparatus, Expendable Material and Instruments
    - 24.1.1.3. Anesthesia of Choice
    - 24.1.1.4. Patient positioning
    - 24.1.1.5. Surgical Care of the Patient
  - 24.1.2. Specific Nursing Training in Otorhinolaryngology Surgery
- 24.2. Neck Surgery
  - 24.2.1. Thyroidectomy/Hemithyroidectomy
  - 24.2.2. Parathyroidectomy
  - 24.2.3. Submaxillectomy
  - 24.2.4. Cervical Lymph Nodal Emptying
- 24.3. Tracheal Surgery Tracheostomy
- 24.4. Larynx Surgery
  - 24.4.1. Direct Laryngoscopy
  - 24.4.2. Laryngoplasty
  - 24.4.3. Laryngectomy (Partial/Subtotal/Total)
  - 24.4.4. Vocal Rehabilitation After Total Laryngectomy
  - 24.4.5. Thyroplasty
  - 24.4.6. Intralaryngeal Infiltration
- 24.5. Pharynx Surgery
  - 24.5.1. Tonsillectomy
  - 24.5.2. Adenoidectomy



- 24.6. Nasal Surgery
  - 24.6.1. Septoplasty
  - 24.6.2. Septorhinoplasty
  - 24.6.3. CENS (Endoscopic Nasosinusual Surgery)
  - 24.6.4. Turbinoplasty
  - 24.6.5. Dacryocystorhinostomy
- 24.7. Ear Surgery
  - 24.7.1. Tympanoplasty
  - 24.7.2. Stapedectomy
  - 24.7.3. Neurinoma: Via Translabyrinthine and Retrosigmoid Pathways

## Module 25. Urology

- 25.1. General Urology and Laparoscopic Interventions
- 25.2. Transurethral Interventions
  - 25.2.1. Bladder Pathology
    - 25.2.1.1. Transurethral Resection (TUR)
    - 25.2.1.2. Cystoscopy
    - 25.2.1.3. Bladder Lithotripsy
  - 25.2.2. Prostate Pathology
    - 25.2.2.1. Transurethral Resection of the Prostate (TURP) for Benign Prostatic Hyperplasia (BPH)
  - 25.2.3. Urethral Pathology
    - 25.2.3.1. Rigid/Flexible Ureteroscopy
    - 25.2.3.2. Ureteral Catheter/*Pigtail* Placement
- 25.3. Laparotomy Interventions
  - 25.3.1. Prostatectomy
  - 25.3.2. Radical or Partial Nephrectomy
  - 25.3.3. Renal Implant
- 25.4. Percutaneous and Other Interventions
  - 25.4.1. Nephrostomy.
  - 25.4.2. Percutaneous Nephrolithotomy
  - 25.4.3. Urethra: Urethroplasty
  - 25.4.4. Hydrocele/Varicocele/Orchiectomy/Vasectomy/Circumcision/Nesbit
- 25.5. Other Interventions



*A unique, key, and decisive  
Advanced Master's Degree  
experience to boost your  
professional development"*

06

# Methodology

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

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 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 situation, what should a professional do? Throughout the program students will be presented with multiple Clinical symptoms simulated cases based on real Patient, where they 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”*

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.





## 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 case studies 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.*

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 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 (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system of TECH 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

TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of Education. All this, in first person, with the maximum rigor, explained in detail to contribute to the assimilation and understanding of the students. 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 multimedia content presentation training Exclusive system 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 & Re-Testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see if you are achieving your 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

This **Advanced Master's Degree in Operating Room Nursing** guarantees you, in addition to the most rigorous and up-to-date training, access to a **Advanced Master's Degree** issued by **TECH Technological University**.





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

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

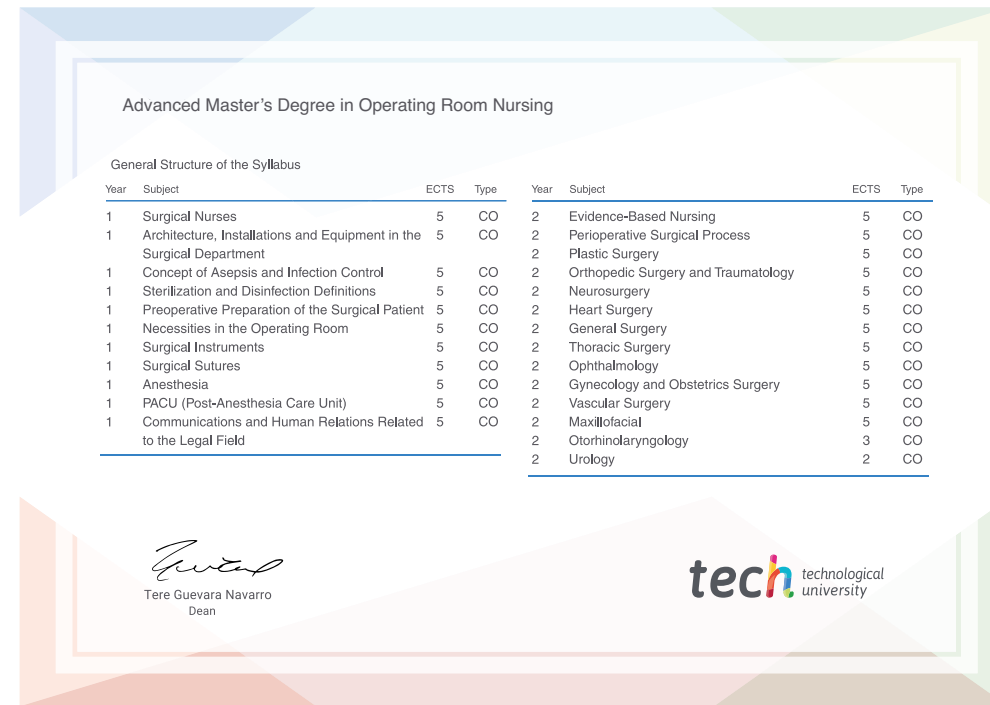
After passing the assessments, the student will receive their corresponding certificate issued by **TECH Technological University**.

This degree contributes to the academic development of the professional and adds a high university level value to their training, and is 100% valid in all competitive examinations, labor exchanges and professional career evaluation committees.

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

ECTS: **120**

Official N° of Hours: **3000**



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



## Advanced Master's Degree Operating Room Nursing

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Advanced Master's Degree Operating Room Nursing

