# Master's Degree

## Advanced Intensive Care Nursing

tech global university

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# Master's Degree
## Advanced Intensive Care Nursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Accreditation: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/nursing/master-degree/master-advanced-intensive-care-nursing**

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# Introduction to the Program

The role of Nursing in Intensive Care Units has evolved rapidly, driven by advances in monitoring, life support, and strategies for caring for critically ill patients. According to the World Health Organization, improvements in healthcare staff training have been key in reducing mortality in these high-complexity environments. For this reason, TECH has designed this 100% online academic opportunity for nursing professionals seeking to specialize in this field. Through a flexible model and content based on the latest evidence, graduates will be able to expand their knowledge and manage highly responsible topics such as organ transplants, organ donation, and other critical conditions of great importance.

*Thanks to this 100% online Master's Degree, you will master specialized procedures in Intensive Care and optimize the long-term well-being of patients"*

The evolution of intensive care has been marked by significant advancements in monitoring, respiratory support, and intervention protocols for critically ill patients. The COVID-19 health crisis highlighted the need to update these procedures and strengthen the competencies of nursing staff in this area.

In response to this, TECH presents this innovative Master's Degree in Advanced Intensive Care Nursing, offering a comprehensive and updated view of advanced intensive care. Throughout the program, graduates will be able to delve into the assessment and monitoring of patients with respiratory, neurological, or digestive-nutritional conditions. They will also develop key skills in critical areas such as the care of major burn victims, organ donors, and post-transplant care. Additionally, the program addresses crucial strategies in patient safety, control of nosocomial infections, and the application of medications in critical situations, providing essential tools for efficient decision-making in intensive care units.

This syllabus stands out for its 100% online methodology, which allows access to exclusive educational materials at any time. The content is complemented with detailed videos, clinical cases, and specialized readings, offering a dynamic and effective learning experience. Thanks to the Relearning method, healthcare professionals will reduce long study hours and be able to absorb knowledge naturally and progressively.

This **Master's Degree in Advanced Intensive Care Nursing** contains the most complete and up-to-date university program on the market. Its most notable features are:

- The development of practical cases presented by experts in Advanced Intensive Care 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
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Advanced Intensive Care Nursing.
- 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

*You will be able to manage emergencies in Intensive Care, such as Respiratory Arrest, Sepsis, and Hypertensive Crises"*

*A curriculum with the Relearning methodology to quickly and efficiently absorb key concepts"*

*You will apply innovative strategies in Intensive Care to optimize decision-making and improve patient safety in high-complexity situations.*

*Specialized readings will allow you to further extend the rigorous information provided in this academic option.*

The teaching staff includes professionals from the field of Advanced Intensive Care Nursing, who bring their practical experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

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# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.

*Study at the largest online university in the world and ensure your professional success. The future begins at TECH"*

### The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

### The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

### The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.


### The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

### A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

### The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

### Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.


### Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

### The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

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# Syllabus

The syllabus of this university qualification offers a comprehensive journey through the essential competencies in Advanced Intensive Care. Through specialized modules, nursing professionals will deepen their knowledge in hemodynamic, respiratory, and neurological monitoring and support, which are key to stabilizing critically ill patients. They will also acquire skills in managing digestive-nutritional issues and electrolyte balance, as well as in the care of major burn victims and transplant patients. An academic pathway designed to strengthen decision-making in high-complexity environments and enhance the quality of care in Intensive Care Units.

*You will perfect your skills in managing innovative protocols for hemodynamic, respiratory, and neurological stabilization in high-complexity settings"*

## **Module 1.** Approach to the Critical Patient. Vision from the Point of View of Patient Safety and Quality

1.1. Intensive Care Unit

- 1.1.1. Roles and Competencies of ICU Staff
- 1.1.2. Characteristics Based on the Complexity Level of the Hospital
- 1.1.3. Cost-Effectiveness

1.2. Initial Check-list

- 1.2.1. Equipment and Technology
- 1.2.2. Physical Design and Space Distribution
- 1.2.3. Green ICU

1.3. The Critically Ill Patient

- 1.3.1. Profile of Admitted Patients
- 1.3.2. Admission Criteria for Critically Ill Patients
- 1.3.3. Acute and Chronic Critically Ill Patients

1.4. Humanization and Anthropological Vision

- 1.4.1. HUCI Project
- 1.4.2. Comprehensive Care
- 1.4.3. Music Therapy

1.5. The Patient and Family: The Central Axis of Nursing Care

- 1.5.1. Psychological Support
- 1.5.2. Effective Communication with the Patient and Family
- 1.5.3. Patient Involvement in Decision-Making

1.6. Teamwork

- 1.6.1. Non-Technical Skills
- 1.6.2. Customer Relationship Management (CRM)
- 1.6.3. Team STEPPS

1.7. Quality and Indicators in Intensive Care Services

- 1.7.1. Internal and External Audits
- 1.7.2. Quality indicators in ICU
- 1.7.3. Recognition of Excellence



1.8. Ethical Principles in ICU
- 1.8.1. Conflict Resolution in ICU
- 1.8.2. Ethical Consultation and Ethics Committees
- 1.8.3. Ethics as a Pillar in Making Difficult Decisions

1.9. Implementation of Evidence-Based Protocols
- 1.9.1. Zero Bacteremia
- 1.9.2. Zero Pneumonia
- 1.9.3. Zero Resistance

1.9.4. Zero UTI
- 1.10. Patient Safety
- 1.10.1. Risk Management
- 1.10.2. Safe Practices
- 1.10.3. Safety Committee

## **Module 2.** Advanced Nursing Care in the Critically Ill Patient

2.1. Nursing Care and Planning in the Daily Care of the Critically Ill Patient
- 2.1.1. Skin Hygiene and Hydration
- 2.1.2. Early Mobilization
- 2.1.3. Considerations for Immobilized Patients

2.2. Mobilizing the Critically Ill Patient
- 2.2.1. Pre-Mobilization Considerations
- 2.2.2. Lateral Decubitus
- 2.2.3. Supine Position
- 2.2.4. Prone Position

2.3. Isolation Measures
- 2.3.1. Isolation Criteria
- 2.3.2. Contact Isolation
- 2.3.3. Droplet Isolation
- 2.3.4. Airborne Isolation
- 2.3.5. Reverse Isolation

2.4. Wounds and Pressure Ulcers (PU)
- 2.4.1. Pressure Ulcers: Prevention and Devices
- 2.4.2. Surgical Wounds
- 2.4.3. Moisture-Related Wounds

2.5. Collaboration with Other Professionals. Transversal Competencies
- 2.5.1. Intraprofessional and Interprofessional Communication
- 2.5.2. Leadership
- 2.5.3. Support and Assistance Among Professionals

2.6. Post-ICU Syndrome
- 2.6.1. Physical Sequelae
- 2.6.2. Emotional and Psychological Sequelae
- 2.6.3. Risk Screening and Prevention

2.7. Limiting Therapeutic Effort
- 2.7.1. Criteria and Considerations
- 2.7.2. How to Proceed
- 2.7.3. Spiritual Considerations

2.8. Ultrasound: Nursing Assessment and Intervention
- 2.8.1. Assessment and Prevention
- 2.8.2. Indications and Management
- 2.8.3. An Essential Tool for Vascular Access Cannulation

2.9. Vascular Access
- 2.9.1. ICU-Specific Catheters
- 2.9.2. Nursing Care
- 2.9.3. Drug Management and Compatibility

2.10. Intra-hospital Transfers
- 2.10.1. Before Transfer
- 2.10.2. During Transfer
- 2.10.3. After Transfer

## **Module 3.** Hemodynamic Monitoring and Support. Advanced Care for Patients with Hemodynamic Issues

3.1. EKG Monitoring and Telemetry + Non-Invasive Hemodynamic Monitoring
- 3.1.1. Electrocardiography
- 3.1.2. Arrhythmias
- 3.1.3. Alert Signs and Alarms

3.2. Temperature Monitoring
- 3.2.1. Temperature Measurement: Central and Peripheral Thermometers, SV
- 3.2.2. Methods to Decrease Temperature: *Artic Sun* and *Coolgard*, IV
- 3.2.3. Methods to Increase Temperature

3.3. Invasive Monitoring I
- 3.3.1. Arterial Catheter
- 3.3.2. Central Venous Pressure (CVP)
- 3.3.3. Nursing Care

3.4. Invasive Monitoring II: Cardiac Output (CO), Pulmonary Artery Pressure (PAP), and Other Parameters
- 3.4.1. Swan Ganz
- 3.4.2. PiCCO System
- 3.4.3. VolumeView
- 3.4.4. LiDCO
- 3.4.5. Vigileo

3.5. Percutaneous Circulatory Support: Counterpulsation Balloon (BCiA), Impella CP + 2.5, VA ECMO
- 3.5.1. Indications
- 3.5.2. Operation
- 3.5.3. Nursing Assessment and Care

3.6. Non-Percutaneous Circulatory Support: HeartMate, Impella 5.0, Levitronix, Berlin-Heart Excor, VA-ECMO
- 3.6.1. Indications
- 3.6.2. Operation
- 3.6.3. Nursing Assessment and Care

3.7. Pacemakers
- 3.7.1. Transcutaneous or External
- 3.7.2. Transvenous
- 3.7.3. Epicardial

3.8. Advanced Life Support (ALS) in the Critically Ill Patient
- 3.8.1. Action Protocol
- 3.8.2. Changes and Differences Compared to Other Units
- 3.8.3. Post-Resuscitation Care

3.9. Myocardial Infarction Code. Admission and In-Hospital Follow-Up
- 3.9.1. Patient Admission
- 3.9.2. Primary Assessment and Intervention
- 3.9.3. Catheterization
- 3.9.4. Follow-Up and Nursing Care

3.10. Administration of Most Common Medications
- 3.10.1. Vasoactive Drugs: Types
- 3.10.2. Pharmacodynamics and Pharmacokinetics
- 3.10.3. Special Considerations in Administration and Withdrawal

## **Module 4.** Respiratory Monitoring and Support. Advanced Care for Patients with Respiratory Issues

4.1. Basic Monitoring of the Respiratory Pattern
- 4.1.1. SpO2
- 4.1.2. Respiratory Rate (RR)
- 4.1.3. Capnography

4.2. Oxygen Therapy Systems
- 4.2.1. Low Flow
- 4.2.2. High Flow
- 4.2.3. Humidification

4.3. Mechanical Ventilation. The Starting Point
- 4.3.1. Physiology and Pathophysiology
- 4.3.2. Difference Between Ventilation and Perfusion
- 4.3.3. Mechanical Concepts
- 4.3.4. Gasometry. Interpretation and Monitoring of the Patient

4.4. Invasive Mechanical Ventilation I
- 4.4.1. Indications and Objectives
- 4.4.2. Total Ventilatory Support Modalities
- 4.4.3. Partial Ventilatory Support Modalities

4.5. Invasive Mechanical Ventilation II
- 4.5.1. Zero Pneumonia
- 4.5.2. Endotracheal Tube and Nasotracheal Tube. Nursing Care
- 4.5.3. Tracheostomy Tube. Nursing Care

4.6. Non-Invasive Mechanical Ventilation
- 4.6.1. Indications and Objectives
- 4.6.2. Contraindications
- 4.6.3. Ventilatory Support Modes

4.7. Non-Invasive Mechanical Ventilation II
- 4.7.1. Choice of Devices
- 4.7.2. Nursing Care

4.8. Extracorporeal Membrane Oxygenation System: ECMO
- 4.8.1. Implantation and Operation
- 4.8.2. Assessment and Nursing Care
- 4.8.3. Weaning

4.9. Extracorporeal CO2 Removal
- 4.9.1. Indications and Operation
- 4.9.2. *Hemolung*
- 4.9.3. *Prolung*

4.10. Administration of Inhaled Medications
- 4.10.1. Types and Recommendations
- 4.10.2. AnaConDa System
- 4.10.3. Nitric Oxide

## **Module 5.** Neurological Monitoring and Support. Advanced Care for Patients with Neurological Issues

5.1. Neurocritical Patient
- 5.1.1. Nursing Care and Intervention
- 5.1.2. Neurological and Pupil Assessment
- 5.1.3. Pupillometer
- 5.1.4. Scales

5.2. Code Stroke. Admission and In-Hospital Follow-Up
- 5.2.1. Patient Admission
- 5.2.2. Primary Assessment and Intervention
- 5.2.3. Fibrinolysis
- 5.2.4. Follow-Up and Nursing Care

5.3. External Ventricular Drainage (EVD)
- 5.3.1. Management and Functioning
- 5.3.2. Nursing Care
- 5.3.3. Assessment and Interpretation

5.4. Invasive Monitoring
- 5.4.1. Intracranial Pressure (ICP)
- 5.4.2. Camino Modular System
- 5.4.3. Nursing Assessment and Intervention

5.5. Sedation Management in the Critically Ill Patient
- 5.5.1. Most Common Medications
- 5.5.2. RASS Scale
- 5.5.3. RAMSAY Scale
- 5.5.4. SAS Scale
- 5.5.5. MAAS Scale

5.6. Sedation Monitoring
- 5.6.1. BIS
- 5.6.2. INVOS
- 5.6.3. Nursing Assessment and Intervention

5.7. Analgesia Management in the Critically Ill Patient
- 5.7.1. Most Common Medications
- 5.7.2. EVA Scale
- 5.7.3. ESCID Scale

5.8. Analgesia Monitoring
- 5.8.1. ANI
- 5.8.2. NOL
- 5.8.3. Nursing Assessment and Intervention

5.9. Management and Monitoring of Muscle Relaxants in the Critically Ill Patient
- 5.9.1. Most Common Medications
- 5.9.2. TOF
- 5.9.3. Nursing Assessment and Intervention

5.10. Delirium Management in Intensive Care Units
- 5.10.1. Prevention and Identification
- 5.10.2. CAM-ICU Scale
- 5.10.3. Associated Complications

## **Module 6.** Digestive and Nutritional Monitoring and Support. Advanced Care for Patients with Digestive-Nutritional Issues

6.1. Indications and Considerations for Nutrition Based on Patient Needs
- 6.1.1. Selection of Access Route for Enteral Nutrition (EN) Based on Patient Characteristics
- 6.1.2. Applicability
- 6.1.3. Early Implantation of Nutrition in the Critically Ill Patient

6.2. Types of Nutrition
- 6.2.1. Enteral Nutrition
- 6.2.2. Parenteral Nutrition
- 6.2.3. Mixed Nutrition

6.3. Enteral Nutrition Devices
- 6.3.1. Nasogastric Tube (NGT)/Orogastric Tube (OGT)
- 6.3.2. Percutaneous Endoscopic Gastrostomy (PEG)
- 6.3.3. Nursing Care

6.4. Nutritional Assessment and Risks of Malnutrition in the Critically Ill Patient
- 6.4.1. Classification
- 6.4.2. Screening Tools
- 6.4.3. Nutritional Supplements

6.5. Monitoring and Follow-Up of Nutritional Treatment
- 6.5.1. Bioelectrical Impedance
- 6.5.2. Muscle and Visceral Ultrasound
- 6.5.3. Caloric-Protein Requirements

6.6. Dysphagia and Other Issues in the Critically Ill Patient
- 6.6.1. Prevention and Early Detection
- 6.6.2. Types of Dysphagia. Prospective
- 6.6.3. Associated Complications

6.7. Metabolism in the Critically Ill Patient
- 6.7.1. Metabolic Response to Stress
- 6.7.2. Biomarkers
- 6.7.3. Morphofunctional Assessment of the Critically Ill Patient

6.8. Management and Monitoring of Nutritional Therapy in Special Situations
- 6.8.1. Glucose Control in ICU
- 6.8.2. Patients with Hemodynamic Instability
- 6.8.3. Patients with ARDS or Prone Positioning
- 6.8.4. Trauma/Burned Critically Ill Patients

6.9. Monitoring for the Effectiveness and Safety of Nutritional Support
- 6.9.1. Importance of Biochemical Control
- 6.9.2. Most Important Monitoring Parameters
- 6.9.3. Refeeding Syndrome

6.10. Elimination Devices: Flexi-Seal
- 6.10.1. Indications and Contraindications
- 6.10.2. Management and Implantation
- 6.10.3. Nursing Care

## **Module 7.** Monitoring and Support in Elimination and Hydrolyte Balance in the Patient. Advanced Care for Patients with Elimination Issues

7.1. Fluid Balance
- 7.1.1. Insensible Losses
- 7.1.2. Latest Recommendations
- 7.1.3. Special Considerations

7.2. Ions and Associated Issues
- 7.2.1. Ion imbalance
- 7.2.2. pH Shifts
- 7.2.3. Associated Complications

7.3. Management of the Most Common Intoxications
- 7.3.1. Drug Intoxications
- 7.3.2. Metal Intoxications
- 7.3.3. Drug Overdose

7.4. Intra-Abdominal Pressure (IAP)
- 7.4.1. Measurement Devices
- 7.4.2. Interpretation and Assessment
- 7.4.3. Indications

7.5. Vascular Access for Extrarenal Detoxification Therapy and Its Nursing Care
- 7.5.1. Catheter Location and Types
- 7.5.2. Nursing Care
- 7.5.3. Problem Resolution. Nursing Assessment

7.6. Extrarenal Detoxification Therapy
- 7.6.1. Osmosis. Convection and Diffusion
- 7.6.2. Most Common Therapy Types
- 7.6.3. Plasmapheresis

7.7. Ostomies Types and Nursing Care
- 7.7.1. Nursing Care
- 7.7.2. Colostomy and Ileostomy
- 7.7.3. Ureterostomy and Nephrostomy

7.8. Surgical Drains
- 7.8.1. Nursing Care
- 7.8.2. Types
- 7.8.3. Special Considerations

7.9. Negative Pressure System
- 7.9.1. Operation and Indications
- 7.9.2. Types
- 7.9.3. Nursing Care

7.10. Extracorporeal Hepatic Support
- 7.10.1. Indications and Contraindications
- 7.10.2. Types and Special Considerations
- 7.10.3. Nursing Care and Assessment

## **Module 8.** Special Situations. Severe Traumatic Patient. Assessment and Advanced Care

8.1. Severe Traumatic Disease
- 8.1.1. General Overview
- 8.1.2. Medical History
- 8.1.3. Accidentology and Lesional Biomechanics

8.2. Initial Trauma Care: Primary and Secondary Assessment
- 8.2.1. Prehospital Care and Transport
- 8.2.2. Primary Assessment and Stabilization
- 8.2.3. Secondary Assessment

8.3. Traumatic Brain Injury. TBI
- 8.3.1. Injuries
- 8.3.2. Management and Nursing Care
- 8.3.3. Procedures and Techniques

8.4. Facial and Neck Trauma
- 8.4.1. Injuries
- 8.4.2. Management and Nursing Care
- 8.4.3. Procedures and Techniques

8.5. Thoracic Trauma
- 8.5.1. Injuries
- 8.5.2. Management and Nursing Care
- 8.5.3. Procedures and Techniques

8.6. Abdominal Trauma
- 8.6.1. Injuries
- 8.6.2. Management and Nursing Care
- 8.6.3. Procedures and Techniques

8.7. Pelvic Trauma
- 8.7.1. Injuries
- 8.7.2. Management and Nursing Care
- 8.7.3. Procedures and Techniques

8.8. Spinal Cord Trauma (Vertebromedullary)
- 8.8.1. Injuries
- 8.8.2. Management and Nursing Care
- 8.8.3. Procedures and Techniques

8.9. Orthopedic Trauma
- 8.9.1. Injuries
- 8.9.2. Management and Nursing Care
- 8.9.3. Procedures and Techniques

8.10. Trauma in special situations and groups
- 8.10.1. Advanced Life Support in Trauma (ALST)
- 8.10.2. At-Risk Populations
- 8.10.3. *Crush and Blast Injuries*

## **Module 9.** Special Situations. Burned Patient. Assessment and Advanced Care

9.1. Burned Patient Care
- 9.1.1. Skin Anatomy
- 9.1.2. Local and Systemic Pathophysiology of Burns
- 9.1.3. Definition of Burn and Severe Burn

9.2. Assessment and Types of Burns
- 9.2.1. According to the Lesion Agent
- 9.2.2. According to the Extension
- 9.2.3. According to the Depth

9.3. Initial Management and Stabilization of the Burned Patient
- 9.3.1. Optimization of Ventilation and Fluid Resuscitation
- 9.3.2. Pain Control
- 9.3.3. Early Treatment of Burns

9.4. Systemic Treatment of the Burned Patient
- 9.4.1. Thermodilution-Guided Resuscitation
- 9.4.2. Administration of Albumin and Ascorbic Acid
- 9.4.3. Nutritional Support

9.5. Common Complications in the Burned Patient
- 9.5.1. Hydroelectrolytic Disorders
- 9.5.2. Shock, ARDS, and MOF
- 9.5.3. Infectious Processes

9.6. Local Treatment of Burns: Debridement
- 9.6.1. Tangential Debridement
- 9.6.2. Enzymatic Debridement
- 9.6.3. Escharotomy

9.7. Local Treatment of Burns: Coverage
- 9.7.1. Synthetic and Biosynthetic Coverage
- 9.7.2. Graft Coverage
- 9.7.3. Pain Control

9.8. Bioactive Dressings
- 9.8.1. Hydrogels
- 9.8.2. Hydrocolloid
- 9.8.3. Alginate

9.9. Inhalation Syndrome
- 9.9.1. Pathophysiology of Carbon Monoxide Inhalation
- 9.9.2. Diagnosis of Carbon Monoxide Poisoning
- 9.9.3. Treatment

9.10. Special Burns
- 9.10.1. Burns Caused by Electrical Agents
- 9.10.2. Burns Caused by Chemical Agents
- 9.10.3. Uncommon Burns

## **Module 10.** Special Situations. Organ Transplantation and Donation

10.1. Death in the ICU
- 10.1.1. Death from Another Perspective
- 10.1.2. Legislation on Dignified Death
- 10.1.3. Bioethics and Death in the ICU

10.2. Humanization and Grief Support
- 10.2.1. Humanization Protocol
- 10.2.2. Role of the Nurse
- 10.2.3. Family Support

10.3. Adjustment of Life Support Therapies
- 10.3.1. Concept of Life Support Therapy (LST)
- 10.3.2. Types of LST
- 10.3.3. LST Protocol

10.4. Assessment of Potential Donor
- 10.4.1. Absolute Contraindications
- 10.4.2. Relative Contraindications
- 10.4.3. Complementary Tests
- 10.5. Maintaining the Donor in Brain Death
- 10.5.1. Brain Death Diagnosis
- 10.5.2. Physiological Changes After Brain Death
- 10.5.3. Thoracic Donor Maintenance

10.6. Donation in Controlled Asystole
- 10.6.1. Concept of Donation in Controlled Asystole
- 10.6.2. Controlled Asystole Donation Procedure
- 10.6.3. Organ Preservation in Controlled Asystole Donation

10.7. Tissue Donation
- 10.7.1. Types of Tissues for Transplant
- 10.7.2. Ocular Tissue Donation Procedure
- 10.7.3. Donation of Other Tissues
- 10.8. New Donation Scenarios
- 10.8.1. Intensive Care Oriented Towards Donation
- 10.8.2. Donation in Neurodegenerative Diseases
- 10.8.3. Donation After Providing Aid in Dying

10.9. Care for Transplanted Patients
- 10.9.1. Heart Transplant
- 10.9.2. Lung Transplant
- 10.9.3. Liver Transplant
- 10.9.4. Kidney Transplant

10.10. Donation in Uncontrolled Asystole (DUA)
- 10.10.1. Uncontrolled Asystole Donation Procedure
- 10.10.2. Organ Preservation in Uncontrolled Asystole Donation
- 10.10.3. Outcomes in DUA

04

# Teaching Objectives

This academic opportunity aims to transform professionals into leaders in the care of critically ill patients. Throughout this program, they will develop expert mastery of skills that optimize each intervention. They will also acquire key knowledge in respiratory and neurological management, addressing complex clinical challenges with precision. Additionally, they will be prepared to act in critical situations such as major burns, organ donation, and high-complexity post-operative care. A dynamic and innovative learning experience that will drive them to lead with confidence and excellent care.

*You will manage special situations in the ICU, such as the burned patient, organ donor, and post-transplant care, providing high-quality assistance"*

## General Objectives

- Synthesizing data to inform the assessment of the critically ill patient
- Collecting data to inform the assessment of the critically ill patient
- Use data to inform the assessment of the critically ill patient
- Plan care collaboratively and in a patient-centered manner
- Incorporate the latest evidence-based practice in critical care nursing
- Act effectively in pressurized and demanding situations

*You will apply strict biosafety measures to prevent Nosocomial Infections in the ICU"*

## Specific Objectives

### Module 1. Approach to the Critical Patient. Vision from the Point of View of Patient Safety and Quality

- Manage and monitor activities, objectives, processes, and compliance with indicators
- Identify and respond to severe or adverse incidents in clinical practice

### Module 2. Advanced Nursing Care in the Critically Ill Patient

- Modify priorities and adapt the work plan considering changes
- Promote adherence to unit and hospital guidelines, as well as national regulations, related to medication administration in the intensive care environment

### Module 3. Hemodynamic Monitoring and Support. Advanced Care for Patients with Hemodynamic Issues

- Provide nursing care in Cardiovascular Disorders.
- Manage fluids and vasoactive drugs to support circulation, including vasopressors and inotropes

### Module 4. Respiratory Monitoring and Support. Advanced Care for Patients with Respiratory Issues

- Provide nursing care in Respiratory Disorders
- Initiate, manage, and care for patients undergoing invasive mechanical ventilation

### Module 5. Neurological Monitoring and Support. Advanced Care for Patients with Neurological Issues

- Provide nursing care in Neurological and Neuromuscular Disorders
- Evaluate and assess the patient's level of analgesia

### Module 6. Digestive and Nutritional Monitoring and Support. Advanced Care for Patients with Digestive-Nutritional Issues

- Provide nursing care in Gastrointestinal, Metabolic, and Endocrine Disorders
- Correctly identify glucose abnormalities

### Module 7. Monitoring and Support in Elimination and Hydrolyte Balance in the Patient. Advanced Care for Patients with Elimination Issues

- Provide nursing care in Renal Disorders and Intoxications
- Correctly identify electrolyte and acid-base balance disturbances

### Module 8. Special Situations. Severe Traumatic Patient. Assessment and Advanced Care

- Provide nursing care in Polytrauma Patients
- Anticipate potential problems
- Stay updated on specific mobilization based on the patient's needs
- Integrate all team members as part of the process

### Module 9. Special Situations. Burned Patient. Assessment and Advanced Care

- Provide nursing care for Burned Patients
- Identify and assess the condition of the skin

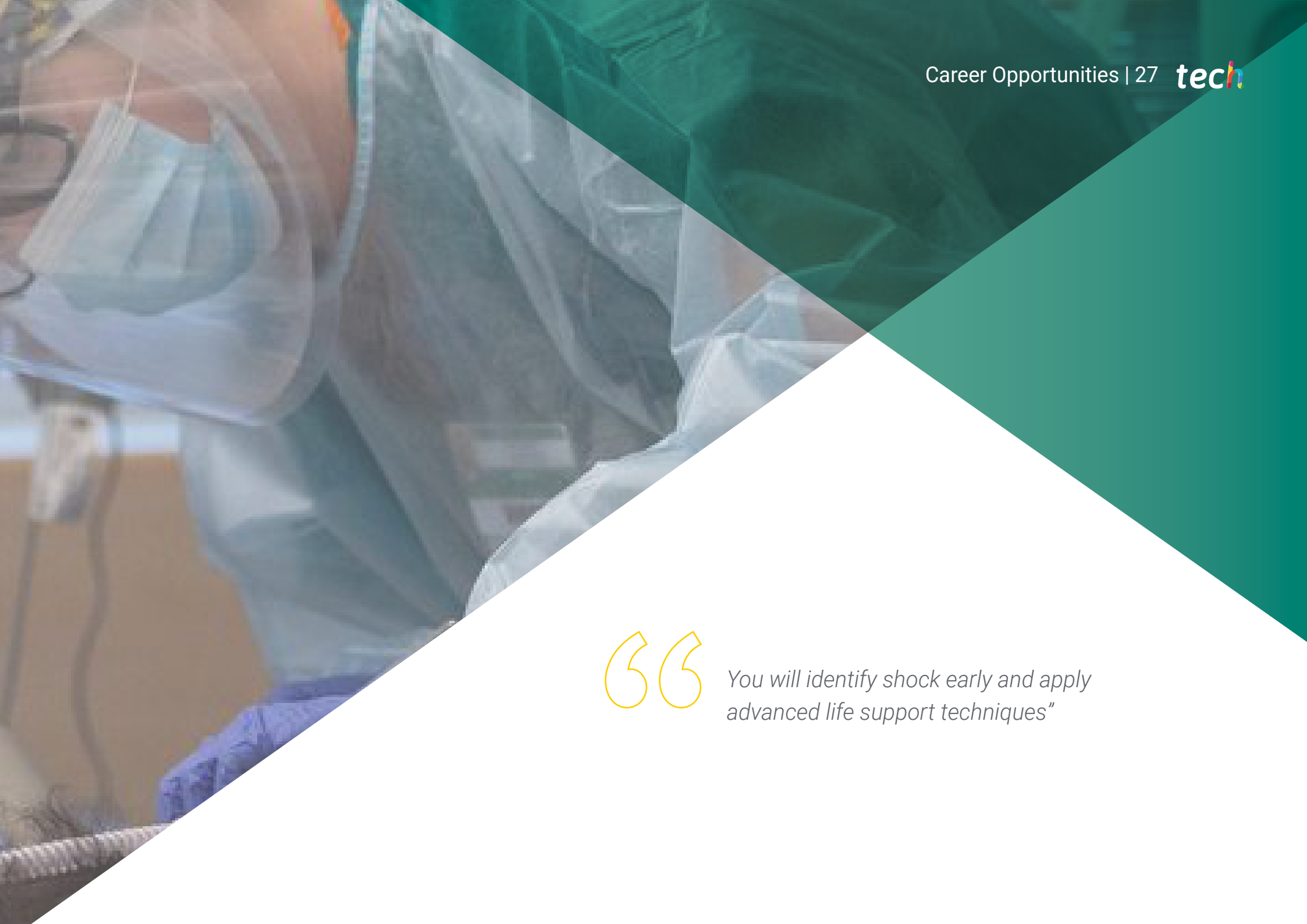
### Module 10. Special Situations. Organ Transplantation and Donation

- Provide nursing care for Transplant Patients
- Provide appropriate care for Organ Donor Patients
- Assist in diagnostic tests for brain death
- Integrate effective communication with the family in the process of a possible donation

05

# Career Opportunities

Upon completing this Master's Degree in Advanced Intensive Care Nursing, the graduate will be able to work in critical care units in hospitals and clinics, both in the public and private sectors. They will also have the opportunity to join emergency teams, transplant units, and services caring for patients with complex pathologies. Additionally, they will be able to work as a consultant in optimizing critical care protocols and patient safety. Their specialization will enable them to take leadership roles in implementing innovative strategies to improve care quality in high-complexity settings.



*You will identify shock early and apply advanced life support techniques"*

### Graduate Profile

Upon completing this program at TECH, the graduate will be a highly skilled professional in the advanced management of critically ill patients, with specialized skills in hemodynamic monitoring, respiratory support, and neurological complication control. They will have competencies in evidence-based decision-making and the application of safety protocols in intensive care units. Additionally, they will master strategies to lead multidisciplinary teams, optimizing resource management and care quality. Their profile will be oriented towards excellence in critical care, with an innovative vision and constant updates on industry advances.

*You will optimize care for polytrauma, post-surgical, and multi-organ failure patients"*

- **Advanced Monitoring of the Critically Ill Patient:** Mastery of specialized techniques in hemodynamic, respiratory, and neurological control to optimize care in high-complexity environments
- **Comprehensive Intensive Care Management:** Ability to coordinate multidisciplinary interventions, ensuring efficient and evidence-based care
- **Optimization of Safety Protocols:** Implementation of advanced measures to prevent adverse events and improve care quality
- **Leadership in Multidisciplinary Teams:** Development of competencies for managing work teams in intensive care units and specialized areas



After completing the university program, you will be able to apply your knowledge and skills in the following positions:

1. **Intensive Care Nurse Specialist:** Responsible for the advanced care of critically ill patients, applying monitoring and life support protocols.
2. **Critical Care Unit Coordinator:** In charge of resource management and optimization in the ICU, ensuring efficiency and safety in care.
3. **Consultant in Safety and Care Quality:** Advisor in implementing strategies for continuous improvement in intensive care and critical units.
4. **Critical Care Transport Nurse:** Specialist in the stabilization and safe transfer of critically ill patients between healthcare centers.
5. **Leader in Emergency Protocol Management:** Responsible for designing and implementing operational guidelines in intensive care units and emergency departments.
6. **Supervisor of Nursing Teams in Critical Areas:** In charge of organizing and leading professionals in the ICU, ensuring compliance with quality standards.
7. **Specialized Nurse in Hemodynamic and Respiratory Support:** Professional in monitoring and stabilizing patients with circulatory or respiratory failure.
8. **Critical Care and Healthcare Technology Researcher:** Developer of clinical studies and innovations to improve care in intensive care.

*"You will manage the principles of sedation, analgesia, and nutritional support in critically ill patients, ensuring a holistic intervention"*

06

# Study Methodology

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

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

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

## The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

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

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

## The most comprehensive study plans at the international level

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

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

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

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

## Case Studies and Case Method

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

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

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

## Relearning Methodology

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

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

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

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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

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

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

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

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

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

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

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

## The university methodology top-rated by its students

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

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

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

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

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

### Study Material

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

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

### Practicing Skills and Abilities

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

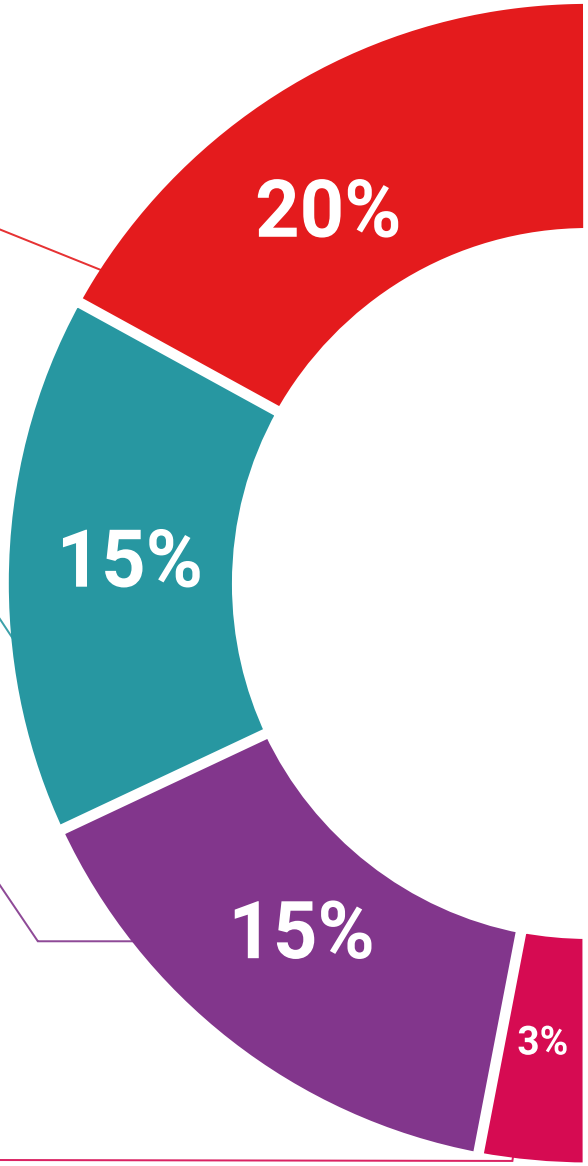
### Interactive Summaries

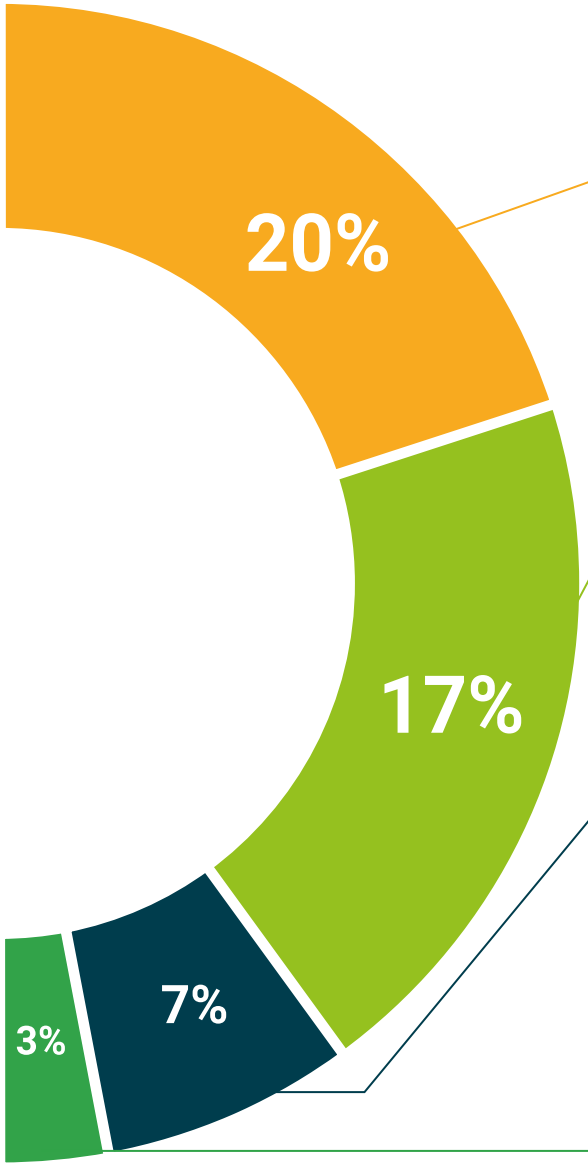
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

### Additional Reading

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






### Case Studies

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

### Testing & Retesting

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

### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.

### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

07

# Teaching Staff

The teaching staff of this Master's Degree in Advanced Intensive Care Nursing consists of specialists in intensive care who have led advancements in the management of critically ill patients. Their experience spans the implementation of advanced monitoring technologies, optimization of therapeutic strategies, and leadership of multidisciplinary teams in high-complexity environments. Thanks to their innovative approach and constant updates, graduates will master the most cutting-edge techniques to improve the stability, recovery, and prognosis of critically ill patients.

*You will update your knowledge alongside experts who have led advancements in the management of critically ill patients"*

## Management

### Ms. Fernández Lebrusán, Laura

- Nurse in the Medical ICU at Puerta de Hierro Majadahonda University Hospital
- Clinical Simulation Instructor
- Specialist in Emergency Medical Services by Helicopter
- Master's Degree in Emergency and Critical Care in Hospitals from San Pablo University
- Member of: European Society for Simulation and Intensive Care Medicine Society of the Community of Madrid

## Teachers

### Dr. Pérez Redondo, Marina

- Transplant Coordinator of at the Puerta De Hierro Hospital
- Assistant Physician of the Intensive Care Medicine Medicine Department at the Puerta de Hierro Majadahonda University Hospital
- Member of the Intensive Care Medicine Research Group in the areas of Cardiovascular, Digestive and Rheumatology Biopathology.
- Scientist Collaborator, Faculty of Medicine, Autonomous University of Madrid (UAM)
- Degree in Medicine and Surgery from the University of Santiago de Compostela

### Ms. Ramos Ávila, Pilar

- Supervisor of the Intensive Care Unit, Transplant Unit and Cardiological Care Unit Hospital Puerto de Hierro
- La Luz Clinic Nurse
- Nurse at Gregorio Marañón General University Hospital
- Member of the Mortality and Policy Committee.
- Diploma in Nursing from the Pontifical University of Salamanca

### Dr. González González, Elena

- Assistant Physician of the Intensive Care Department, Torrejón University Hospital
- Assistant Physician of the Intensive Care Department, Getafe University Hospital
- Transplant Coordinator of the University Hospital of Torrejón
- Pulmonary and Critical Care Division in the Northwestern Memorial Hospital in Chicago
- Clinical Simulation Instructor
- PNRCP SVA SVI Instructor
- Director and teacher of Advanced Life Support courses.
- Degree in Medicine from the Autonomous University Madrid
- President of the CPR Committee of the Torrejón University Hospital

### Ms. Sánchez Hernández, Mónica

- Nurse in the Post-Surgical Critical Care Unit (UCPQ) at the Puerta de Hierro Majadahonda University Hospital
- Responsible for Patient Safety and referral nurse in Chronic Wound Care.
- Nurse in Primary Care substitutes in several Area V Centers.
- Collaborating Nurse in the Center for Vascular Ulcer Cures (CCUV)
- Clinical teaching collaborator at the UAM
- Diploma in Nursing from the Puerta de Hierro University School of Nursing, a center attached to the Autonomous University of Madrid
- Member of: Dermal Ulcer Committee and Pressure Ulcer and Chronic Wounds Committee

### Ms. Juncos Gonzalo, Mónica

- Head of the Surgical ICU Nursing Unit at the Gregorio Marañón General University Hospital
- ICU Nurse at the Gregorio Marañón General University Hospital, Madrid
- ICU Nurse at the Southeast Hospital
- Critical Care Nurse Pool at the Gregorio Marañón General University Hospital
- Researcher in the project "Assessment of analgesia, sedation, restraints and delirium in patients admitted to adult Intensive Care Units in Spain"
- Researcher in the project "Adaptation and validation of frailty scales in critically ill patients admitted to Critical Care Units in Spain"
- Bachelor's Degree in Nursing from the Complutense University of Madrid
- Master's Degree in Human Resources Management from the European University of Madrid.
- Postgraduate Diploma in Nursing Management and Leadership by the Catholic University of Avila.
- Postgraduate Diploma in Processes and Interventions by the Catholic University of Avila.
- Member of: Spanish Society of Intensive Nursing and Coronary Units (SEEIUC), Spanish Wound Society (SEHER) and Spanish Society of Nursing Anesthesia, Resuscitation and Pain Therapy (A-SEEDAR).

**Mr. Buenavida Camarero, Javier**

- Nurse in the Medical ICU of the University Hospital Puerta de Hierro Majadahonda
- Nurse at Móstoles University Hospital
- Nurse at University Hospital of Getafe
- Master's Degree in Critical Illness and Emergencies given by the University of Barcelona

**Ms. Barrero Almazán, María**

- Nurse in the Trauma and Emergency ICU of Hospital 12 de Octubre
- Nurse at University Hospital La Paz University Hospital
- Nurse at Gregorio Marañón General University Hospital
- Nurse at University Hospital La Princesa
- Expert in Emergency Medicine by the European University of Madrid
- Diploma in Nursing from the Autonomous University of Madrid

**Mr. Domínguez García, Sergio**

- Nurse in the Dental ICU of the University Hospital Puerta de Hierro Majadahonda.
- Nurse in Intensive Care Unit of Infanta Elena University Hospital
- Nurse in Acute Geriatrics Unit of the Gregorio Marañón General University Hospital
- Nurse in Intensive Care Unit of Jiménez Díaz Foundation Hospital
- Master's Degree in Respiratory and Mechanical Ventilation by the University of Valencia
- Master's Degree in Critical Care at Universidad Rey Juan Carlos
- Collaborating member of CPR in SEEIUC

**Dr. Domínguez Pérez, Laura**

- Assistant physician in the Acute Cardiac Care Unit and Clinical Cardiology Unit at 12 de Octubre University Hospital
- Research stay at the Montreal Cardiology Institute.
- Specialist in Cardiology at the Carlos III Hospital.
- Doctorate in Medical Sciences from the Complutense University of Madrid.
- Master's Degree in Advances in Cardiology
- Master's Degree in Acute Cardiac Care
- Expert in Diabetes Mellitus 2 and Cardiovascular Diseases
- Expert in Atrial Fibrillation
- Member of the Spanish Society of Intensive Care Medicine, Critical Care and Coronary Units.

**Mr. Sánchez Álvarez, Armando**

- Nurse in the multiple trauma and emergency ICU at University Hospital 12 de Octubre
- Nurse in Medical ICU at Ramón y Cajal Hospital
- Medical ICU and Surgical Rea at Hospital Severo Ochoa de Leganés
- General Emergency Nurse at University Hospital La Paz
- Master's Degree in Critical Care at University Rey Juan Carlos
- Postgradute Diploma in Hospital and Outpatient Emergencies and Emergencies, Escuela de Ciencias de la Salud, Madrid.

### Mr. Martín De Castro, Javier

- Coronary Intensive Care Unit Nurse at the University Hospital de la University Hospital 12 de Octubre
- Nurse in the Post-Surgical Intensive Care Unit at the Puerta de Hierro Hospital
- Nurse in the Intensive Care Unit at the Ruber Juan Bravo Hospital. Graduate in Nursing
- Master's Degree in Critical Illness and Emergencies at Universitat de Barcelona.
- University Expert in Nursing Processes and Interventions for Pediatric Patients in Life-Threatening Situations
- Expert in Simulation Instructor: Improving teamwork through TeamSTEPPS®

### Ms. López Álvarez, Ana María

- Nurse in the Intensive Care Unit of La Paz University Hospital
- Nurse in the 3rd Resuscitation Unit of General Surgery, Maxillofacial, Neurosurgery, Urological H. La Paz.
- Nurse in the Intensive Care Unit, H. Puerta de Hierro H. La Paz
- Nurse in the General Surgery Unit H. La Paz Hospital
- Instructor of ICU Simulation in UFV
- Postgraduate Certificate in Nursing at the University School of Nursing Puerta de Hierro (UAM)

### Dr. Villén Villegas, Tomás

- Assistant to medical coordination at Isabel Zendal Emergency Hospital Nurse
- Adjunct Emergency Specialist at University Hospital La Paz
- Assistant Emergency Specialist at Ramón y Cajal University Hospital
- Adjunct Emergency Specialist at Hospital Infanta Sofia
- Postdoctoral Fellow at Harvard University
- Vice-president of the World Interactive Network Focuse on Critical Ultrasound (WINFOCUS) Ibérica
- Member of the Ultrasound Working Group of the European Society for Emergency Medicine (EuSEM), the Society for Ultrasound in Medical Education (SUSME), and the Spanish Society for Emergency Medicine (SEMES)

### Dr. Mateos Rodríguez, Alonso

- Deputy Transplant Coordinator at the Regional Office of the Community of Madrid
- Adjunct physician in SUMMA 112 emergencies
- Visiting scientist at the Carlos III National Cardiovascular Research Center Foundation.
- Emergency Doctor in Hospital Sanitas La Zarzuela
- Emergency Physician at University Hospital 12 de Octubre

**Ms. Gil Hernández, Cristina**

- Nurse at the Ramón y Cajal University Hospital
- Nurse in Primary Care Management
- Nurse at San Francisco de Asis University Hospital
- Nurse at the Móstoles University Hospital
- Researcher in the BPSO Working Group at Hospital Sureste
- Graduate in Nursing from the Complutense University of Madrid.
- Expert in Emergency Care and Out-of-hospital Emergencies, Complutense University of Madrid
- Expert in School Health from the Catholic University of Ávila

**Ms. Alonso Hernández, Vanesa**

- Nurse in UCI Henares University Hospital
- Nurse in Clinical Analysis Laboratory at Labipah, S.A.
- Nurse in the Intensive Care Unit at the Puerta de Asturias University Hospital.
- SVB- AED Instructor by the Spanish Society of Intensive Care Medicine, Critical Care and Coronary Units
- Postgraduate Diploma from Nursing in Outpatient
- Postgraduate Certificate Nurse from the University of Alcalá, Spain

*Make the most of this opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

08

# Certificate

The Master's Degree in Advanced Intensive Care Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Master's Degree issued by TECH Global University.

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This private qualification will allow you to obtain a **Master's Degree in Advanced Intensive Care Nursing del Programa** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Master's Degree in Advanced Intensive Care Nursing**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

**Master's Degree in Advanced Intensive Care Nursing**

This is a private qualification of 1,800 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
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

Master's Degree in Advanced Intensive Care Nursing

General Structure of the Syllabus

| Subject type | ECTS |
|---|---|
| Compulsory (CO) | 60 |
| Optional (OP) | 0 |
| External Work Placement (WP) | 0 |
| Master's Degree Thesis (MDT) | 0 |
| | Total 60 |

General Structure of the Syllabus

| Year | Subject | ECTS | Type |
|---|---|---|---|
| 1º | Approach to the Critical Patient. Vision from the Point of View of Patient Safety and Quality | 6 | CO |
| 1º | Advanced Nursing Care in the Critically Ill Patient | 6 | CO |
| 1º | Hemodynamic Monitoring and Support. Advanced Care for Patients with Hemodynamic Issues | 6 | CO |
| 1º | Respiratory Monitoring and Support. Advanced Care for Patients with Respiratory Issues | 6 | CO |
| 1º | Neurological Monitoring and Support. Advanced Care for Patients with Neurological Issues | 6 | CO |
| 1º | Digestive and Nutritional Monitoring and Support. Advanced Care for Patients with Digestive-Nutritional Issues | 6 | CO |
| 1º | Monitoring and Support in Elimination and Hydrolyte Balance in the Patient. Advanced Care for Patients with Elimination Issues | 6 | CO |
| 1º | Special Situations. Severe Traumatic Patient. Assessment and Advanced Care | 6 | CO |
| 1º | Special Situations. Burned Patient. Assessment and Advanced Care | 6 | CO |
| 1º | Special Situations. Organ Transplantation and Donation | 6 | CO |

Dr. Pedro Navarro Illana
Dean

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

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# Master's Degree
## Advanced Intensive Care Nursing

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Accreditation: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

# Master's Degree

## Advanced Intensive Care Nursing

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