

Internship Program  
Neonatal Intensive  
Care and Neonatal Nursing



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Care and Neonatal Nursing

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# 01 Introduction

Neonatal Intensive Care and Neonatal Nursing have experienced significant progress due to medical and technological advances, as well as constant research in the area. This evolution has generated an increasing demand for highly trained professionals in this field, since a deep knowledge of the different neonatal stages and of the anatomical and physiological characteristics of newborns is required. Aware of this need, TECH has designed a program of eminently practical, face-to-face and intensive, with a duration of 3 weeks, which will allow the nurse to immerse in the latest innovations and advances in this area. Through this immersive, hands-on experience, students will be able to develop specific skills and competencies, thus strengthening their ability to provide quality care.

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*Up-to-date your skills in a practical way thanks to this unique learning experience that TECH makes available to you"*





Recent studies show a significant decrease in the neonatal mortality rate in neonatal intensive care units in recent years. This is attributed to advances in medical care, better management of preterm infants and neonatal complications, as well as the implementation of evidence-based practices. Therefore, it shows how important it is for the nursing professional to keep abreast of the latest advances in order to provide optimal care to newborns.

In the same vein, recent research has shown that implementing family-centered care practices in neonatal intensive care units has significant benefits for premature infants and their families. These practices include the active involvement of parents in care and decision making, promoting bonding and improving long-term outcomes. For this, it is essential to have not only theoretical knowledge, but also a specific practice that instructs the nurse in decision making and accompaniment.

As a result, there is an increasing demand for qualified nurses with expertise in the use of state-of-the-art instruments required in this field, as well as solid training. In this context, this exclusive TECH qualification is born, which allows the professional to acquire the necessary knowledge and skills through a unique Practical Training.

In this way, throughout this degree the student will be introduced to the structure and organization of a Neonatology Department by renowned professionals who will guide them at all times. During a 3-week stay in a renowned clinical environment, you will learn the latest techniques and tools in Neonatal Intensive Care.

# 02

## Why Study an Internship Program?

Theoretical education is essential for a dedicated Neonatal Intensive Care nurse, but without clinical practice, skill development and knowledge application would be limited. That is why TECH has created a degree that takes place in a completely practical environment, where professionals can face real situations, interact with patients and work as a team to provide the best care. For this reason, students will complement their previous knowledge with a 3-week practical experience in a renowned hospital center. During this stay, nurses will have the opportunity to apply the diagnostic and therapeutic procedures learned, work with reference specialists and face real cases, which will allow them to consolidate their skills and competencies.



*TECH offers you a unique opportunity to acquire practical skills from experts dedicated to neonatal care"*

### 1. Updating from the Latest Technology Available

Advances in Neonatal Intensive Care and Neonatal Nursing translate into improved stabilization techniques, diagnosis and care for neonates. By keeping up to date with this hands-on training, the nurse will be aware of the most effective and up-to-date protocols for preventing complications and reducing risks in the newborns under his or her care.

### 2. Gaining In-depth Knowledge from the Experience of Top Specialists

Throughout this educational program will, the Nurse will be accompanied at all times by reputable experts. In this way, they will be able to experience firsthand the use of cutting-edge technologies, always guided by renowned experts who will guide them in their learning.

### 3. Entering First-Class Clinical Environments

TECH carries out a meticulous selection process of the centers that will be part of the practical stay integrated in this Practical Training. Therefore, these instances will give the professional the opportunity to access a renowned clinical environment in the field of Neonatal Intensive Care and Neonatal Nursing. In this way, the nurse will be able to observe firsthand the dynamics of work in an area that is characterized by its demands, rigor and thoroughness.



#### 4. Access to the most advanced practice

In order to develop a complete learning process in such a demanding and constantly evolving field as Neonatal Intensive Care and Neonatal Nursing, theoretical training is not enough. Precisely for this reason, TECH offers a practical, face-to-face and intensive 3-week degree in which the nurse will delve into the innovations in this area. All of this from the hand of renowned professionals who will guide you through the entire process.

#### 5. Expanding the Boundaries of Knowledge

In order to carry out the practical experience in this Practical Training, TECH provides the opportunity to carry it out in prestigious centers of international renown. In this way, the professional will have the opportunity to broaden his or her horizons and update his or her knowledge with leading experts in first-rate hospitals located in different geographical locations.



*You will have full practical immersion at the center of your choice"*

# 03 Objectives

Thanks to this degree, nurses will update their skills in diagnostic and therapeutic procedures in the field of Neonatal Intensive Care in an exclusively practical way. In addition, they will be able to apply state-of-the-art protocols using the latest technology on real patients, attending a first level clinical environment.



## General Objectives

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- Participate in a hospital stay designed with clinical and academic rigor, providing the opportunity to learn from renowned professionals
- Develop skills in the main interventions related to care in Neonatal Intensive Care Units
- To improve and enhance the competencies of nurses in the care of neonates in intensive care units
- To up-to-date the diagnostic and therapeutic procedures in the field of Neonatal Intensive Care and Neonatal Nursing in an exclusively practical way







## Specific Objectives

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- ♦ Categorize neonatal stages, as well as neonatal stages by gestational age and neonatal stages by weight at birth
- ♦ Determine the differences which exist in the pediatric age group between a newborn, a child and an adolescent
- ♦ Establish the techniques for measuring the somatometry of a newborn, as well as its morphological and physiological characteristics
- ♦ Assess the complete examination, sequence of physical examination and complete physical examination of the newborn, focusing primarily on the head and neck region, trunk region and extremities region
- ♦ Evaluate the structure and organization of a Neonatology Service, as well as its location, the necessary equipment and materials; and the necessary human resources
- ♦ Acquire up-to-date knowledge of the arrival of a newborn in the neonatal ward, the admission criteria, its objectives and the necessary nursing interventions
- ♦ Determine how to structure a neonatal intensive care unit (NICU), as well as the calculation and arrangement of the cribs, the necessary physical space needed, the necessary equipment and materials; and the necessary human resources
- ♦ Identify the profiles and roles of the "nursing team" as well as its operating system: "Primary Nursing"
- ♦ Establish the criteria and objectives for admission of a newborn to the NICU; as well as the necessary nursing interventions
- ♦ Gain up-to-date knowledge of resuscitation procedures
- ♦ Incorporate the latest information on the recommendations for neonatal resuscitation techniques, acknowledging the neonatal risk factors, as well as general procedures in the lead-up to birth
- ♦ Incorporate the basic principles of newborn sedation, anesthetic drugs and sedative/hypnotics into nursing
- ♦ Incorporate the principles of drug administration in the Neonatal Unit, as well as the use of the different routes: enteral, rectal, intramuscular, subcutaneous and intravenous routes, into nursing practice
- ♦ Differentiate the specific ways of administering drugs, the necessary equipment and its procedure
- ♦ Acquire up-to-date knowledge of the necessary techniques for maintaining the line, removal of the line and the occurrence of possible complications
- ♦ Determine the precautions and contraindications as well as the appearance of possible complications that can occur with each of the specific ways of administering drugs
- ♦ Incorporate the procedures for the reception of underweight premature newborns in the NICU
- ♦ Determine the different types of pathologies specific to a premature newborn including those relating to respiratory, neurological, ophthalmological, cardiovascular, digestive, immunological, metabolic, hematological and endocrinological pathologies
- ♦ Differentiate the sequelae that could appear, as well as their monitoring
- ♦ Control all aspects of the premature newborn's recovery period, the procedure for discharging them from hospital and their subsequent care
- ♦ Establish rules of conduct, nutrition, necessary pharmacological supplements, as well as neuropsychological and somatometric monitoring, and preventive measures against respiratory infections
- ♦ Acquire up-to-date knowledge of premature newborn vaccination programs
- ♦ Incorporate newborn temperature assessment guidelines into nursing practice

- ♦ Implement hypothermia in a newborn with hypoxic-ischaemic encephalopathy as a neuroprotective measure, as well as the neuroprotective mechanisms of action of hypothermia
- ♦ Differentiate the indications and contraindications of hypothermia
- ♦ Evaluate the different techniques for measuring pain in a newborn
- ♦ Predict the onset of withdrawal syndrome in the newborn and how to manage it
- ♦ Establish the management of fluids and electrolytes in the newborn, to maintain a hydroelectrolytic balance, controlling the insensible loss of water and electrolytes (sodium, potassium, calcium)
- ♦ Control the water balance in neonatals admitted to the intensive care unit
- ♦ Establish the procedures for calculating water balance in a critically ill newborn
- ♦ Calculate insensible losses or insensible gains in a newborn with weight gain or weight loss
- ♦ Differentiate between very premature and hyperosmolar state
- ♦ Identify when fluids should be restricted in a very premature newborn
- ♦ Explain what a newborn diet consists of
- ♦ Gain up-to-date knowledge of the process and the benefits of breastfeeding
- ♦ Classify the types of feeding used in the Neonatal Unit and NICU such as enteral nutrition and parenteral nutrition
- ♦ Determine the indications and contraindications of enteral nutrition and parenteral nutrition
- ♦ Acquire up-to-date knowledge of recommendations for the use of both enteral and parenteral nutrition routes of administration
- ♦ Differentiate the components of parenteral nutrition
- ♦ Gain up-to-date knowledge of the guidelines for the withdrawal of parenteral nutrition
- ♦ Explain family-centred care, as well as the ways to promote and rebuild the family bond
- ♦ Evaluate the importance of family in the neonatal unit and NICU
- ♦ Establish coping strategies for perinatal death, the intervention of professionals if it occurs, the grieving process and the stages
- ♦ Acquire up-to-date knowledge of the most important aspects of neonatal pharmacology, changes in drug response in newborns, pharmacokinetics and pharmacodynamics in neonatology
- ♦ Identify the modalities of respiratory assistance
- ♦ Revise the process of lung development, lung embryology and lung anatomy
- ♦ Assess the respiratory problems of a newborn
- ♦ Establish the involvement of nursing staff in treating a newborn with a respiratory disorder
- ♦ Incorporate endotracheal intubation and extubation techniques
- ♦ Acquire up-to-date knowledge of the cricothyroidotomy or coniotomy procedures
- ♦ Gain up-to-date knowledge of the cardiac massage technique
- ♦ Identify the differences in the response to a neonatal cardiopulmonary arrest and one in an older pediatric patient
- ♦ Distinguish between the different types of congenital cardiopathies
- ♦ Evaluate the involvement of the nursing professional in treating a newborn with congenital cardiopathy
- ♦ Learn how to create a nursing care plan

- ♦ Gain an understanding of preoperative and postoperative care in cardiac surgery
  - ♦ Gain up-to-date knowledge of the nursing procedure for addressing bacterial endocarditis
  - ♦ Acquire up-to-date knowledge of the intervention procedures in a newborn with neonatal seizures
  - ♦ Identify the most common neurological pathologies: neonatal intracranial hemorrhages and hydrocephalus
  - ♦ Gain up-to-date knowledge of the neonatal bladder catheterization technique
  - ♦ Initiate peritoneal dialysis in a newborn
  - ♦ Differentiate the distinct phases of neonatal shock and the types of shock
  - ♦ Identify clinical signs of neonatal shock
  - ♦ Explain the algorithm for managing neonatal shock
  - ♦ Establish nursing care in neonatal surgery: general preoperative and postoperative care
  - ♦ Highlight the most common types of surgery: choanal atresia, esophageal atresia with tracheoesophageal fistula, diaphragmatic hernia, abdominal wall defects, necrotizing enteritis and imperforate anus
  - ♦ Determine the nursing involvement required in neonatal preoperative and postoperative care
  - ♦ Establish newborn skin care practices
  - ♦ Differentiate the transient benign skin lesions: erythema toxicum neonatorum, transient neonatal pustular melanosis, milia, miliaria, neonatal acne, subcutaneous fat necrosis, mongolian or Baltz spot, telangiectatic nevus or maternal nevi
- ♦ Identify the most common skin infections in newborns: oral candidiasis (thrush), neonatal cutaneous candidiasis, impetigo neonatorum, staphylococcal scalded skin syndrome and neonatal chickenpox
  - ♦ Differentiate the various metabolopathies
  - ♦ Establish the different criteria for listing a metabolopathy in neonatal screening
  - ♦ Acquire up-to-date knowledge of screening techniques, as well as the procedure to follow for the heel prick test
  - ♦ Differentiate the types of screening for the various metabolopathies
  - ♦ Deal with neonatal oncology and the different types of tumors typical of the neonatal period: neuroblastoma, Wilms' tumor and teratomas



*You will understand the best techniques to address hematological disorders in neonatology with an eminently practical approach"*

# 04 Educational Plan

This Practical Training consists of a practical stay in a prestigious center. With a duration of 3 weeks, from Monday to Friday and 8 consecutive hours of practical training, the student will be trained alongside an experienced and specialized professional. For this reason, this stay will allow the student to see real patients next to a reference team in the area of Neonatal Intensive Care.

In this completely practical Internship Program, the activities are aimed at developing and perfecting the skills necessary to provide Healthcare in areas and conditions that require highly qualified professionals, and are oriented towards specific expertise for practicing the activity, in a safe environment for the patient Neonatal and with highly professional performance.

Through the student's active participation in activities and procedures relevant to each area of competence, and with the support of teachers and peers, they will achieve an effective integration of new knowledge. This will allow students to acquire specific and transversal competencies, therefore strengthening their professional skills and perfecting them in the process.

The practical education will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for Current Neonatal Intensive Care and nursing practice Neonatal Analysis(learning to be and learning to relate).



The procedures described below will form the basis of the practical part of the internship, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:

Module	Practical Activity
<b>Neonatology</b>	Examine the newborn to determine its condition according to gestational age and weight.
	Perform the Complete Physical Examination of the Newborn
	To determine the use of physical space, equipment, material and nursing staff in the Neonatal Intensive Care Unit (NICU).
	Reception of a newborn in the neonatal ward.
	Plan and carry out a Neonatal Transfer
<b>Neonatal Resuscitation.</b>	Conduct simulations of planning and application of neonatal resuscitation techniques.
	Discuss the specificities of pharmacokinetics and pharmacodynamics, as well as drug to drug interactions and dosing regimens in the neonate
	Practice enteral and rectal management techniques.
	Practice intramuscular, subcutaneous and intravenous route management techniques, including specific forms of administration, necessary equipment, procedure and maintenance of the different routes.
<b>Care of the premature infant and newborn</b>	Evaluate nursing interventions in airway management in the neonate and take corresponding actions
	Elaborate the nursing care plan for the neonate with congenital heart disease.
	Simulate the care of a neonate with seizures.
	Perform nasogastric and orogastric tube management techniques.
	Handling the peritoneal dialysis catheter
	Apply the algorithm from managing neonatal shock
	Perform preoperative and postoperative care in a neonate with a surgical condition.

Module	Practical Activity
<b>Nursing Interventions in Neonatology</b>	Family-Centred provide high: Ways to Promote and strengthen Family
	Perform Nursing Interventions in the Neonatal Unit and NICU Setting
	Addressing bereavement and the stages of the perinatal death process
	To develop skills to intervene in cases of perinatal death in the NICU.
	Evaluate the Impact of the NICU Environment on Development in Neonates
	Implement Neonatal Care Focused on Development
	Perform interventions in the macroenvironment and microenvironment of the neonate.
<b>Disorders in Neonatology</b>	Perform Involvement of Nurses in Hospital Discharge
	Apply airway management techniques in the neonate and perform corresponding nursing actions.
	Evaluate nursing interventions in the neonate with congenital heart disease and develop a care plan and develop a care plan for the newborn with congenital
	Simulate the care of a neonate with seizures.
	Gain up-to-date knowledge of the procedures for handling nasogastric and orogastric tubes
	Handling the peritoneal dialysis catheter
	Apply the algorithm from managing neonatal shock
Perform preoperative and postoperative care in a neonate with a surgical condition.	

# 05

## Where Can I Do the Internship Program?

TECH, in its commitment to academic excellence, has selected a wide variety of prestigious hospital centers for nurses to apply the first level skills acquired during the initial theoretical phase of the program. For this reason, the degree offers the opportunity to perform internships in these centers, where graduates will be able to complement their academic training and address practical situations in the field of Neonatology. These internships are carried out over a period of 3 weeks, providing an invaluable opportunity to broaden knowledge and face real cases, which will contribute to an optimal professional development.

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*You will have at your disposal the most prestigious clinical centers thanks to this Practical Training that TECH puts at your disposal”*





The student will be able to do this program at the following centers:



Nurses

### Hospital Maternidad HM Belén

Country: Spain  
City: La Coruña

Management: R. Filantropía, 3, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update in Assisted Reproduction
- Hospitals and Health Services Management



Nurses

### Hospital HM Nou Delfos

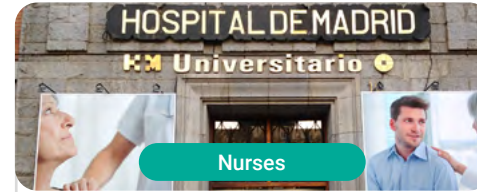
Country: Spain  
City: Barcelona

Management: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Nurses

### Hospital HM Madrid

Country: Spain  
City: Madrid

Management: Pl. del Conde del Valle de Súchil, 16, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Anaesthesiology and Resuscitation



Nurses

### Hospital HM Montepíncipe

Country: Spain  
City: Madrid

Management: Av. de Montepíncipe, 25, 28660, Boadilla del Monte, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Aesthetic Medicine



Nurses

### Hospital HM Torrelodones

Country: Spain  
City: Madrid

Management: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Nurses

### Hospital HM Sanchinarro

Country: Spain  
City: Madrid

Management: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Nurses

### Hospital HM Puerta del Sur

Country: Spain  
City: Madrid

Management: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Clinical Ophthalmology

# 06 General Conditions

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.





## General Conditions of the Internship Program

The general terms and conditions of the internship program agreement shall be as follows:

**1. TUTOR:** During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 07 Certificate

This **Internship Program in Neonatal Intensive Care and Neonatal Nursing Neonatal** contains the most complete and up-to-date program in the professional and academic landscape.

After the student has passed the assessments, they will receive their corresponding Internship Program diploma issued by TECH Technological University via tracked delivery\*.

The certificate issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Neonatal Intensive Care and Neonatal Nursing**

Duration: **3 weeks**

Attendance: **Monday to Friday, 8-hour consecutive shifts**

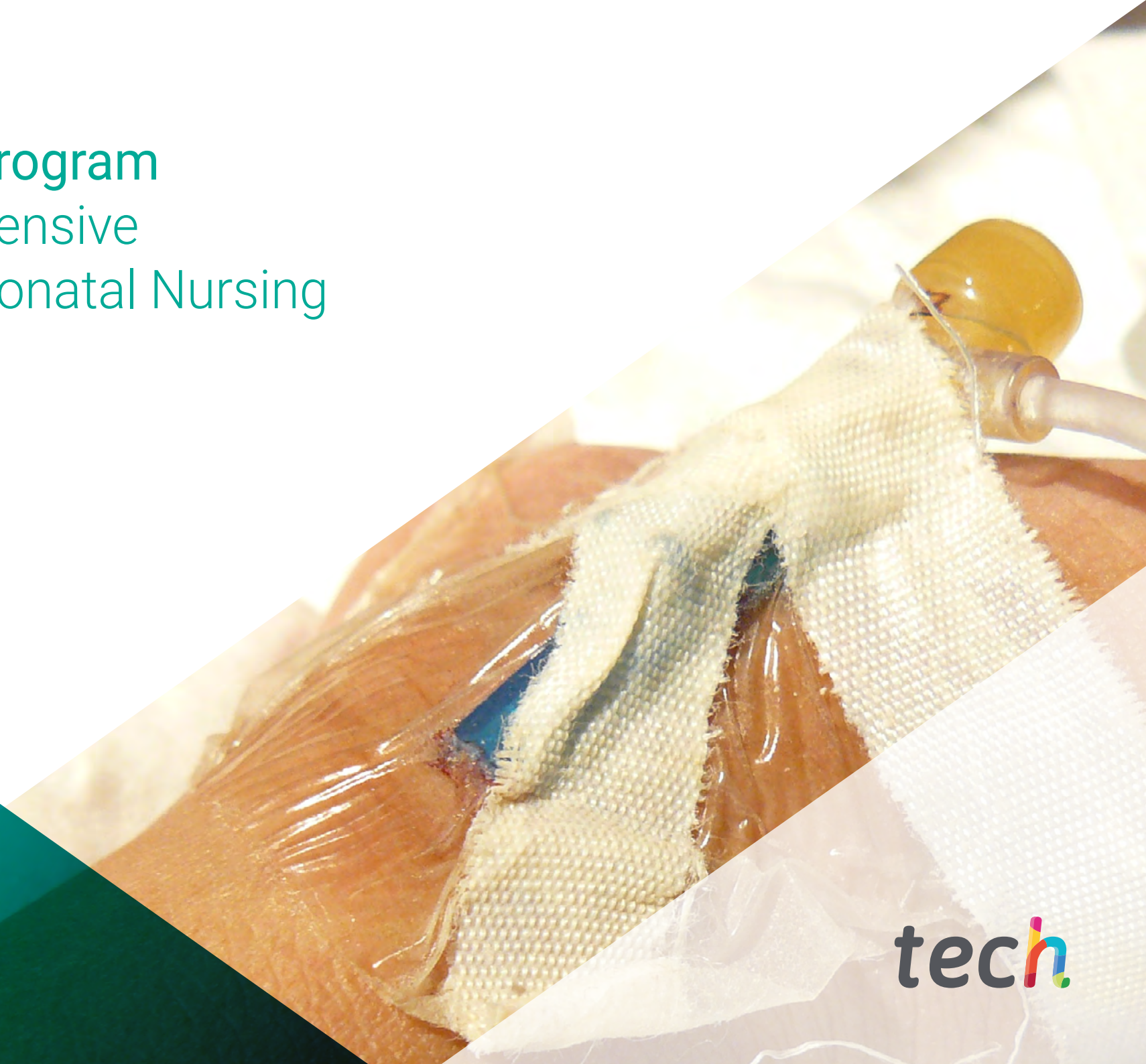
Total Hours: **120 h. of professional practice**



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