

# Postgraduate Diploma Neonatal Nutrition





## Postgraduate Diploma Neonatal Nutrition

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-neonatal-nutrition](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-neonatal-nutrition)

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# 01

# Introduction

Feeding plays an essential role in the good evolution of the pathological conditions present in neonatal patients, as well as in the prognosis of their present and future health. For this reason it is essential that medical professionals are aware of the most recent advances in clinical criteria in the morphological assessment of preterm infants and in the advances in the treatment of digestive disorders and oncology in these children. An update that will be possible thanks to this 100% online academic proposal designed by TECH, which provides the specialist with the most relevant information on Nutrition through innovative pedagogical resources developed by a magnificent team of experts with a long experience in Neonatal and Pediatric Units.





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*A 100% online Postgraduate Diploma that provides you with the current clinical criteria in Neonatal Nutrition over 6 months"*

The evolution of research on neonatology and the approach to the main pathologies in premature patients has highlighted the benefits of breast milk, leading to the inclusion of milk banks in hospitals. In parallel, the study of the use of probiotics in patients with Digestive Disorders and the early detection of various Endocrine and Oncological pathologies has continued.

A wide field of action that leads the professionals of the Neonatology Units to keep abreast of the most relevant advances in this increasingly valued specialty. In this sense, TECH has created this University Expert in Neonatal Nutrition that takes the graduate through a 6-month intensive updating course.

A program that will lead students to deepen in the existing diagnostic and therapeutic procedures in Metabolopathies, Neuroblastomas, Wilms Tumor or Teratomas. The most recurrent digestive pathologies in neonates such as gastroesophageal reflux, esophageal atresia or necrotizing enterocolitis will have a special incidence in this program. For this purpose, it has advanced pedagogical tools based on video summaries of each topic, videos in detail, specialized readings and case studies that you can access comfortably from any digital device with an Internet connection.

Likewise, thanks to the *Relearning* method, consisting of the continuous reiteration of key concepts throughout the academic itinerary, students will consolidate the program in a much simpler way and reduce the long hours of memorization.

Undoubtedly, an ideal opportunity to update your knowledge through a university certification that has all the ingredients that a specialist needs to study it and make your daily responsibilities compatible with a unique academic option.

This **Postgraduate Diploma in Neonatal Nutrition** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Pediatrics and Neonatology
- 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 self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- 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 have the latest information on the use of probiotics in neonatal patients with Digestive Disorders"*

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*With this Postgraduate Diploma you will be aware of the new indications for neuroprotection in the premature newborn"*

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*Thanks to the Relearning system, you will not have to dedicate many hours to study and memorization.*

*You will be able to perform a detailed update of your knowledge on the most important Digestive Pathologies in neonates.*



# 02 Objectives

The purpose of this Postgraduate Diploma is to provide from the very beginning the most effective didactic tools that will lead students over a period of 6 months to obtain a complete update in Neonatal Nutrition. Thus, from a theoretical-practical perspective, the graduate will delve into the proper approach to dysmorphological problems, natal endocrinology or parenteral feeding in the premature newborn. For this purpose, the graduate has clinical cases provided by the faculty of this program.





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*Gain a theoretical and practical perspective on Neonatal Nutrition through clinical case studies and the global approach of this university program”*



## General Objectives

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- Delve into preterm neonates and their implications
  - Update knowledge of the indications for prevention of the sick neonate
  - Be aware of the protocols that optimize the treatment of the sick neonate
  - Describe the main characteristics of the healthy newborn and its basic care
  - Systematize the main problems, disorders and diseases of the newborn, such as weight gain and metabolic development, prematurity, congenital malformations, respiratory or cardiac pathology, metabolic and blood disorders, or digestive or nutritional complications
  - List and describe the main common procedures in neonatology
  - Deepen in the therapeutic activities in the pathologies of the neonate
  - Delve into the basic and specific aspects of complementary examinations in this subspecialty and how to perform them
  - Investigate the knowledge of the different procedures of neonatal nutrition
  - Analyze the follow-up of the newborn once it has been controlled in the acute period
  - Illustrate and reflect on the different moments of care in the models of assistance to the newborn, both healthy and with pathology requiring hospital treatment
  - Explain the various systems of care for the sick neonate, delimiting the continuity between the neonatal period of acute illness and its subsequent follow-up
  - Describe all the accompaniment that the technology means for the adequate monitoring and follow-up of these children, being able to be coupled to the various guides and protocols to finally obtain a global health concept
- Deepen all the possibilities of on-site and even remote monitoring to achieve a very early and optimal performance on the impact of the disease on the neonate
  - Delve into all aspects of the concepts of complementary knowledge that allow understanding perinatology as a complete subspecialty, from the fetal period to long-term follow-up in outpatient clinics
  - Detail the parameters that will indicate the correct acquisition of all the developmental items of the various organs and apparatuses in order to obtain an optimal long-term result
  - Specify all the elements of the pathological conditions of the sick neonate in order to be able to establish work routines with results at the level of medical excellence



*Delve whenever and wherever you want into the most recent evidence for the diagnosis of the most frequent Endocrinological pathologies in neonates"*



## Specific Objectives

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### Module 1. Preterm/Premature Child

- ♦ Identify the various types of Preterm Infant
- ♦ Delve into the exploration and categorization process of these children
- ♦ Describe triggering of prematurity
- ♦ Deepen in the assessment of their various pathologies
- ♦ Inquire into the care by organs and devices in neonatal
- ♦ Addressing possible sequels
- ♦ Establish criteria for hospital discharge

### Module 2. Digestive Disorders and Nutrition in Neonatology

- ♦ Update systematized knowledge of Digestive Pathology
- ♦ Delve into each of the items in the Pathophysiology of the Digestive System
- ♦ Point out the attitudes to be taken, from the point of view of food and nutrition, to improve the evolution of these patients
- ♦ Deepen in nutrition as an essential element for long-term health

### Module 3. Neonatal Endocrinology, Dysmorphology and Oncology

- ♦ Deepen the systematization of the assessment of dysmorphological problems
- ♦ Deepen the diagnosis of dysmorphological problems
- ♦ Identify the essential points in the adequate management of this type of situations
- ♦ Describe the hormonal balance of the neonate
- ♦ Delineate the key points in the various modalities of neonatal *screening*

03

# Course Management

One of the elements that distinguishes this university degree is its excellent faculty, selected for their accumulated professional experience in the field of Neonatology. A faculty that is up to date with the latest scientific evidence in this specialty and whose proximity will allow the graduate to resolve any doubts he/she may have about the content of this program. Undoubtedly, a unique opportunity to be updated by the best experts.





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*Great professionals specialized in Neonatology with great clinical and research experience have elaborated this Neonatal Nutrition update program"*

## Management



### Dr. Baca Cots, Manuel

- ♦ Head of the Pediatrics and Neonatology Service at Hospital Quirón Málaga
- ♦ Head of Neonatology at Hospital Clínica Dr. Gálvez
- ♦ Head of Neonatology at Hospital Qurón of Murcia
- ♦ Head of Andalusian Health Service (SAS)
- ♦ Principal investigator of international multi-center projects
- ♦ Degree in Medicine from the University of Granada

## Professors

### Dr. Pérez, Maribel

- ♦ Neonatologist at the Neonatal Unit of Hospital Quirón Salud de Málaga
- ♦ Pediatric Critical Care Transport
- ♦ Degree in Medicine from the University of Granada



# 04

## Structure and Content

The relevance of feeding in the first days of life of a newborn is covered in a syllabus designed by experts in Neonatology. Thus, the professional will increase his clinical skills in this field through the deepening of the etiopathogenesis of prematurity, resuscitation in premature patients, as well as the approach to the various oncological pathologies. All of this is complemented by a Virtual Library made up of innovative didactic material that can be accessed at any time of the day from a digital device with an Internet connection.







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*Looking for a Neonatal Nutrition program accessible 24 hours a day, from any digital device? Do it through this program designed by TECH”*

## Module 1. Preterm/Premature Child

- 1.1. Etiopathogenesis of Prematurity
  - 1.1.1. Definition and Types of Prematurity
  - 1.1.2. Morphological Assessment
  - 1.1.3. Calculation of Gestational Age
  - 1.1.4. Viability Criteria
  - 1.1.5. Ethical and Legal Considerations
- 1.2. Evaluation of the fetal causes of prematurity
  - 1.2.1. Prevention of Prematurity
  - 1.2.2. Antenatal corticosteroids to accelerate fetal maturation
  - 1.2.3. New indications and neuroprotection in the preterm newborn
  - 1.2.4. Pre-term Care Results
- 1.3. Arrival of an Underweight Premature Newborn
  - 1.3.1. Initial Stabilization
  - 1.3.2. Resuscitation Equipment and Organization
  - 1.3.3. Neonatal Resuscitation Equipment
  - 1.3.4. Special Situations
- 1.4. Respiratory Pathology and Cardiovascular
  - 1.4.1. Preterm Respiratory Pathology and Oxygen Administration
  - 1.4.2. Respiratory Physiology and Mechanical Ventilation
  - 1.4.3. Non-Invasive Ventilation (NIV)
  - 1.4.4. Principles of preterm cardiology
- 1.5. Neurological and Ophthalmological Pathology
  - 1.5.1. Neonatal Seizures
  - 1.5.2. Neonatal intracranial hemorrhages and perinatal cerebral infarction
  - 1.5.3. Hypoxic-Ischemic Encephalopathy and Hypothermia
  - 1.5.4. Main ophthalmologic pathology in preterm infants
- 1.6. Digestive and its nutrition Pathologies
  - 1.6.1. Esophageal Atresia
  - 1.6.2. Necrotizing Enterocolitis
  - 1.6.3. Breastfeeding with mother's milk
  - 1.6.4. Parenteral feeding in the preterm neonate
- 1.7. Hematologic Pathology
  - 1.7.1. Neonatal Anemia
  - 1.7.2. Neonatal Hiperbilirrubinemia
  - 1.7.3. Platelet Alterations
  - 1.7.4. Hemorrhages and Coagulation Disorder
- 1.8. Endocrinologic and metabolic pathology
  - 1.8.1. Metabolopathies
  - 1.8.2. Screening
  - 1.8.3. Thyroid and adrenal glands
  - 1.8.4. Glucose Homeostasis
- 1.9. Hospital Discharge
  - 1.9.1. Feeding
  - 1.9.2. Pharmacological Supplements
  - 1.9.3. Neuropsychological and Somatometric Monitoring
  - 1.9.4. Prevention of Respiratory Infections
  - 1.9.5. Vaccinations for Premature Newborns
- 1.10. Long-term follow-up and chronic problems of premature infants
  - 1.10.1. At-risk premature infant follow-up programs
  - 1.10.2. Surgical schedule
  - 1.10.3. Bronchopulmonary dysplasia and chronic lung disease
  - 1.10.4. Early Care Units

**Module 2. Digestive Disorders and Nutrition in Neonatology**

- 2.1. Generalities, embryology and anatomy of the digestive system
  - 2.1.1. Embryology
  - 2.1.2. Anatomy of the Nervous System
  - 2.1.3. Physiology
  - 2.1.4. Anatomical-physiological Refresher Course
- 2.2. Gastroesophageal Reflux
  - 2.2.1. Ethology
  - 2.2.2. Diagnosis
  - 2.2.3. Treatment
  - 2.2.4. Monitoring
- 2.3. Esophageal Atresia
  - 2.3.1. Classification
  - 2.3.2. Diagnosis
  - 2.3.3. Treatment
  - 2.3.4. Monitoring
- 2.4. Necrotizing Enterocolitis
  - 2.4.1. Ethology
  - 2.4.2. Diagnosis
  - 2.4.3. Treatment
  - 2.4.4. Monitoring
- 2.5. Requirements and Feeding Objectives of the Breastfeeding Infant. Breastfeeding: measures to promote breastfeeding
  - 2.5.1. Breastfeeding
  - 2.5.2. Measurements to Inhibit Breastfeeding
  - 2.5.3. Nutrients
  - 2.5.4. Objectives
- 2.6. Milk Banks. Composition of Breast Milk
  - 2.6.1. Milk Banks
  - 2.6.2. Composition of Breast Milk
  - 2.6.3. Traceability
  - 2.6.4. Security/Safety
- 2.7. Parenteral feeding in the preterm neonate
  - 2.7.1. Carbohydrates
  - 2.7.2. Amino Acids
  - 2.7.3. Lipids
  - 2.7.4. Remaining composition
- 2.8. Enteral Diet Formula milk for premature infants. Trophic feeding
  - 2.8.1. Enteral Feeding
  - 2.8.2. Premature infant formula
  - 2.8.3. Trophic feeding
  - 2.8.4. Other situations
- 2.9. Feeding monitoring: growth charts. Biochemical control parameters
  - 2.9.1. Growth charts
  - 2.9.2. Biochemical parameters
  - 2.9.3. Evolution
  - 2.9.4. Other situations
- 2.10. Probiotics: possible indications and uses
  - 2.10.1. Fundamentals of probiotic knowledge
  - 2.10.2. Indications
  - 2.10.3. Specific utilities
  - 2.10.4. Forms of use

### Module 3. Neonatal Endocrinology, Dysmorphology and Oncology

- 3.1. Metabolopathies
  - 3.1.1. Classification
  - 3.1.2. Diagnosis
  - 3.1.3. Treatment
  - 3.1.4. Monitoring
- 3.2. Different Types of Screening for the Various Metabolopathies. Criteria for Listing a Metabolopathy in Neonatal Screening
  - 3.2.1. Classification of susceptible diseases screening
  - 3.2.2. Criteria for Listing a Metabolopathy in Neonatal Screening
  - 3.2.3. Clinical data
  - 3.2.4. Ways to do it
- 3.3. Screening Techniques: Procedure for the Heel Prick Test
  - 3.3.1. Ways to do it
  - 3.3.2. Diagnosis Classification
  - 3.3.3. Organization
  - 3.3.4. Specific Metabolopathies Centers
- 3.4. Chromosomopathies
  - 3.4.1. Trisomy 21 (Down Syndrome)
  - 3.4.2. Trisomy 18 (Edwards Syndrome)
  - 3.4.3. Trisomy 13 (Patau's Syndrome)
  - 3.4.4. Turner Syndrome (45XO). Klinefelter Syndrome (47XXY)
- 3.5. Study of Chromosomal Alterations
  - 3.5.1. Classification
  - 3.5.2. Clinical diagnosis
  - 3.5.3. Laboratory Diagnosis
  - 3.5.4. Monitoring
- 3.6. Major Structural Changes
  - 3.6.1. Classification
  - 3.6.2. Diagnosis Subspecialties intervention
  - 3.6.4. Monitoring
- 3.7. General Aspects of Neonatal Oncology





- 3.7.1. Fundamentals
- 3.7.2. Tumor types
- 3.7.3. Staging
- 3.7.4. Monitoring
- 3.8. Neuroblastoma
  - 3.8.1. Ethological basis
  - 3.8.2. Diagnosis
  - 3.8.3. Treatment
  - 3.8.4. Monitoring
- 3.9. Wilms Tumor
  - 3.9.1. Ethological basis
  - 3.9.2. Diagnosis
  - 3.9.3. Treatment
  - 3.9.4. Monitoring
- 3.10. Teratomas
  - 3.10.1. Ethological basis
  - 3.10.2. Diagnosis
  - 3.10.3. Treatment
  - 3.10.4. Monitoring



*Extend your knowledge about the diagnosis of Neuroblastomas, Wilms Tumor and Teratomas with the best multimedia didactic material"*

# 05 Methodology

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

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



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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning 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, trying to recreate the real conditions in the physician's professional practice.



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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate 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.





## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

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



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

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

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



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



**Classes**

There is scientific evidence on the usefulness of learning by observing experts. The system known as 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.





06

# Certificate

The Postgraduate Diploma in Neonatal Nutrition guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.







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

This program will allow you to obtain your **Postgraduate Diploma in Neonatal Nutrition** 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.

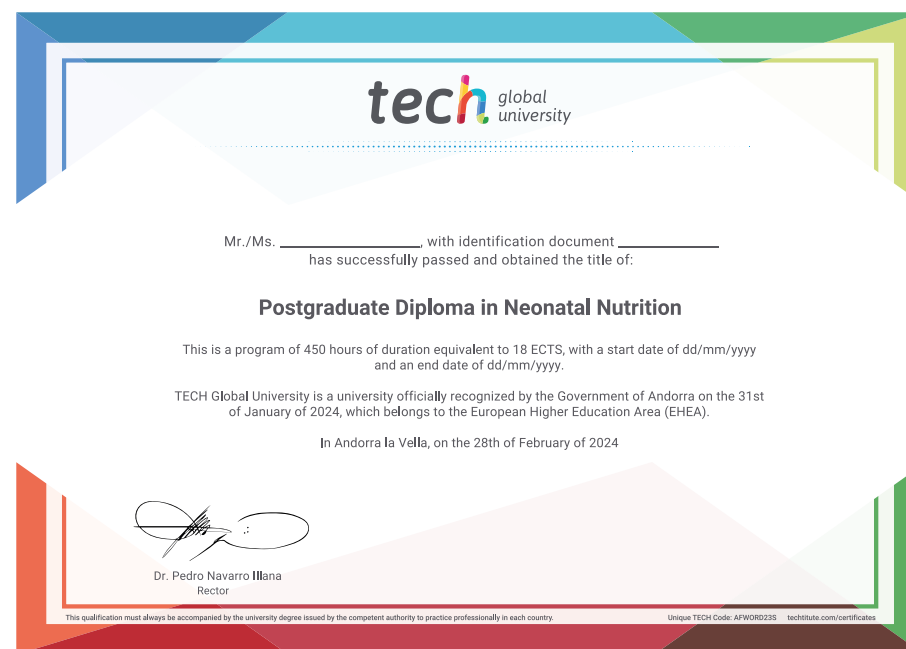
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Neonatal Nutrition**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



\*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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

development languages

virtual classroom

**tech** global  
university

## Postgraduate Diploma Neonatal Nutrition

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
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