

Master's Degree Neonatology





Master's Degree Neonatology

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

Website: www.techtitute.com/en/medicine/master-degree/master-neonatology

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01

Introduction

Advances in the field of technology, pharmacology, and family-focused care in Neonatology Units have made it possible to increase the prognosis of many premature children or those with pathologies present at birth. As such, the evolution in this area leads pediatricians and health professionals to constantly update their knowledge. For this reason, TECH brings together in this educational proposal the most rigorous and exhaustive information on the approach to the main cardiac, pulmonary, neuronal, endocrine disorders, among others in newborns. A 100% online intensive program lasting 12 months, prepared by true specialists with extensive experience in this field and with top-level teaching tools.





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A Master's Degree 100% online that will bring you up to date in the main Endocrine, Neurological, Respiratory or Immunological disorders in newborn patients”

Scientific advances have allowed in recent years to incorporate to the Neonatal Units the most accurate pharmacology to address respiratory and neurological pathologies, Sepsis or complex infections such as Meningitis. Likewise, the promotion of good family-centered care practices, the strengthening of breastfeeding and progress in specific formulas for premature infants have had a significant influence on their survival and patient satisfaction.

In this sense, professionals dedicated to this area of Pediatrics are faced with a daily challenge in the management of newborns who present from very frequent disorders such as jaundice to diseases considered rare in which significant advances have been achieved. In this line, TECH has decided to create this 12-month Master's Degree in Neonatology, designed by an excellent team of experts in this field.

It is an intensive program that will provide the graduate with a complete update on working methods in Neonatology, the assessment of preterm infants, pulmonary development and pathophysiology, the proper management of oxygen therapy, the approach to borderline situations and the singularities in the case of Neonatal Sepsis.

All this, in addition, with a syllabus designed with a theoretical-practical perspective and complementary teaching material based on video summaries of each topic, videos in detail, readings of scientific research and case studies that the doctor will access comfortably, at any time of the day, from a cell phone, tablet or computer with an Internet connection.

A university qualification that does not require attendance at centers or classes with pre-set schedules, so that the professional will have greater freedom to self-manage their access time and reconcile their daily activities with quality teaching.

This **Master's Degree in Neonatology** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of practical cases presented by experts in Pediatrics and Neonatology
- ♦ The graphic, schematic and practical contents with which it is conceived provide scientific and practical information on those disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



The Relearning method will allow you to reduce the hours of study and focus on the most important concepts of this degree in Neonatology”

“

The clinical cases in this program will allow you to stay up to date on Neonatal Resuscitation procedures”

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 immersive education programmed to prepare for real situations.

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

Delve into the therapeutic options for renal replacement, such as peritoneal dialysis, in the newborn patient.

Take the opportunity to learn about the latest advances in this field and apply it to your daily practice.



02 Objectives

This Master's Degree has been designed with the commitment of offering physicians a complete update in Neonatology. To achieve this goal, TECH not only provides first class teaching tools, but also provides the graduate with an excellent team of specialists with extensive experience in this field of Pediatrics, who will resolve any questions you have about the content of this degree. A unique opportunity to update your knowledge through the world's largest online university.





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Get a theoretical-practical overview of the most recent advances in the field of Neonatology throughout the 1,800 teaching hours”



General Objectives

- ♦ Understand the key aspects of early neonatal assessment
- ♦ Analyze the anatomic and physiologic conditions of the neonate
- ♦ Master appropriate neonatal admission and transport procedures
- ♦ Determine neonatal resuscitation and thermal management techniques
- ♦ Develop strategies to prevent and treat hypothermia and pain
- ♦ Investigate neonatal respiratory and cardiovascular disorders
- ♦ Address neurological and metabolic disorders in neonatology
- ♦ Define infections and hematologic disorders in neonatology
- ♦ Evaluate renal and neonatal immunity disorders
- ♦ Apply new technologies to improve neonatal care





Specific Objectives

Module 1. Aspects of the Initial Moments Highlighted in Neonatology

- ♦ Differentiate neonatal assessment techniques in the early detection of possible complications or medical conditions in the newborn
- ♦ Delve into the anatomic and physiologic adaptations of the newborn and their relationship to the transition from intrauterine to extrauterine life
- ♦ Analyze the effectiveness of newborn admission protocols to the neonatal unit in terms of safety and timely medical care
- ♦ Delve into neonatal transportation methods in terms of their impact on the clinical stability and long-term health of the newborn
- ♦ Delve into the techniques of neonatal Resuscitation and their relationship to short and long term results in newborns with health problems at birth
- ♦ Address thermal management strategies and their effect on the prevention of Hypothermia and its complications

Module 2. Respiratory Pathophysiology and Respiratory Diseases in Neonatology

- ♦ Master the pathophysiology to understand etiology and treatment of neonatal respiratory diseases
- ♦ Define the efficacy of respiratory support modalities and mechanical ventilation
- ♦ Address the impact of Non-Invasive Ventilation in premature newborns
- ♦ Narrow down new forms of Ventilation to improve respiratory outcomes
- ♦ Evaluate neonatal Resuscitation strategies in low birth weight premature newborns
- ♦ Analyze mechanisms and therapies for specific neonatal respiratory diseases

Module 3. Neonatal Shock and Sepsis; Cardiovascular Diseases and Congenital Heart Diseases in Neonatology

- ♦ Examine in detail the treatment and management of early neonatal sepsis
- ♦ Identify clinical aspects and treatment of late neonatal sepsis
- ♦ Differentiate pathophysiology and phases of Neonatal Shock
- ♦ Select the treatment of Neonatal Shock and its efficacy
- ♦ Study in depth persistent Pulmonary Hypertension and Patent Ductus Arteriosus
- ♦ Classify Neonatal Congenital Heart Diseases, including Cyanosis

Module 4. Neurological Disorders in Neonatology; Neonatal Endocrinology, Dysmorphology and Oncology

- ♦ Assess the diagnosis and treatment of neonatal seizures
- ♦ Analyze the pathophysiology and diagnosis of Hypoxic-Ischemic Encephalopathy
- ♦ Identify Microcephaly and the approach to neonatal etiological diagnosis
- ♦ Analyze specific neurological pathology in premature babies
- ♦ Define Hypopituitarism and Thyroid disorders in newborns
- ♦ Evaluate different neonatal cancer screening and management techniques

Module 5. Digestive Disorders and Nutrition in Neonatology

- ♦ Approach neonatal nutrition and digestive pathology from a general perspective
- ♦ Differentiate the role of probiotics and prebiotics in Neonatology
- ♦ Analyze necrotizing Enterocolitis in premature babies: diagnosis and treatment
- ♦ Evaluate the diagnoses and treatments for necrotizing Enterocolitis in neonates
- ♦ Distinguish complications and prevention of necrotizing Enterocolitis in neonates
- ♦ Assess nutrition, parenteral and oral feeding in premature babies

Module 6. Hematologic Disorders in Neonatology

- ♦ Delve into the diagnosis and treatment of neonatal Anemia
- ♦ Examine the causes and management of polycythemia in modern Neonatology
- ♦ Address neonatal Thrombocytopenia
- ♦ Define concepts and causes of pathologic neonatal Hyperbilirubinemia
- ♦ Analyze methods of screening and diagnosis of neonatal Hyperbilirubinemia
- ♦ Evaluate Different Approaches to the Treatment of Hyperbilirubinemia

Module 7. Renal Disorders in Neonatology and in the Internal Environment

- ♦ Delve into Renal Embryology to understand its development in newborns
- ♦ Analyze Nephro-urological Diseases and their Implications in Neonatology
- ♦ Identify acute renal failure in newborns
- ♦ Evaluate different therapies for the treatment of Renal Failure
- ♦ Address Neonatal Arterial Hypertension and its possible complications
- ♦ Define Hydroelectrolyte Disorders in Neonatology

Module 8. The Preterm/Premature Baby

- ♦ Determine the Etiopathogenesis of prematurity to understand its fundamental causes
- ♦ Analyze the fetal causes of prematurity
- ♦ Define Patent Ductus Arteriosus and its implications
- ♦ Evaluate Retinopathy of prematurity and its ophthalmologic treatment
- ♦ Study in depth the hematologic pathology and treatment of neonatal Anemia
- ♦ Address metabolic and neuroendocrine pathology of the premature baby





Module 9. Neonatal Infections

- ♦ Master preventive measures to control neonatal nosocomial infections
- ♦ Analyze comprehensive approaches to diagnose and treat neonatal meningitis
- ♦ Assess management strategies for skin infections in neonates
- ♦ Evaluate clinical methods for addressing infections of the musculoskeletal system
- ♦ Structure methods of diagnosis and treatment of neonatal urinary tract infections
- ♦ Appropriately address the diagnosis of TORCH complex infections

Module 10. Fetal and Newborn Immunology

- ♦ Delve into the development of the immune system during pregnancy
- ♦ Analyze the formation of components of the fetal immune system
- ♦ Determine the specific immunological mechanisms in the neonatal period
- ♦ Evaluate maternal-fetal exchange and its immunological implications
- ♦ Define the immunologic consequences of intrauterine infections
- ♦ Develop the immunological assessment of the newborn in depth

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Get up to date in the management of special situations in newborn patients with dysmorphological problems thanks to TECH”

03 Skills

From the performance of mechanical ventilation and the transfer of newborn patients, to the guidelines for the management of hemorrhagic disorders in neonates are treated with exquisite rigor in this program. All this will allow graduates to improve their abilities and skills for the care of newborn patients and their families. To further facilitate the enhancement of these skills, this educational option provides case studies that show the work methodology and the action required for each clinical situation.





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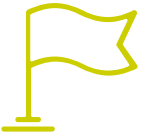
Increase your skills for the care of patients requiring stabilization and subsequent Newborn Transport”



General Skills

- ◆ Perform accurate assessments and identify urgent medical conditions in newborns
- ◆ Perform categorization of the critically ill newborn
- ◆ Coordinate care from admission to discharge, including newborn transport
- ◆ Implement specialized clinical techniques such as resuscitation, thermal management and immunological assessment
- ◆ Apply preventive measures, diagnose and treat neonatal infections effectively
- ◆ Contribute to clinical research and technological development in neonatology
- ◆ Lead multidisciplinary teams for neonatal care, collaborating with other health professionals
- ◆ Enhance family-centered care of a newborn patient





Specific Skills

- ♦ Develop comprehensive neonatal health assessments to detect early anomalies
- ♦ Conduct neonatal resuscitation procedures according to current AHA guidelines
- ♦ Identify and classify neonatal respiratory disorders using specific tests
- ♦ Implement preventive and therapeutic measures for Apnea in preterm newborns
- ♦ Detect signs of Shock and apply immediate therapeutic interventions
- ♦ Effectively manage complex congenital heart disease in newborns
- ♦ Interpret laboratory tests and select appropriate therapies for neonatal Sepsis
- ♦ Treat neonatal seizures quickly and effectively
- ♦ Estimate neurodevelopment and detect anomalies
- ♦ Manage neonatal digestive disorders such as necrotizing enterocolitis
- ♦ Administer and monitor parenteral nutrition in premature newborns and newborns with digestive disorders
- ♦ Educate mothers on the importance and technique of Breastfeeding
- ♦ Reduce the risk of nutritional complications in newborns
- ♦ Treat neonatal polycythemia to prevent associated complications
- ♦ Correct water-electrolyte and acid-base imbalances in newborns to maintain neonatal homeostasis
- ♦ Apply renal replacement therapies such as peritoneal dialysis in newborns with acute renal failure
- ♦ Establish comprehensive follow-up plans for premature newborns, including the identification and management of chronic problems
- ♦ Diagnose and treat TORCH complex infections in newborns, providing multidisciplinary management
- ♦ Manage respiratory infections in newborns, including oxygen administration and specific therapies
- ♦ Understand the mechanisms of maternal-fetal exchange and their impact on neonatal immunity
- ♦ Identify and manage congenital syndromes of humoral and cellular immunodeficiencies in newborns
- ♦ Utilize innovative technologies for the diagnosis and treatment of immunologic disorders in neonatology



Broaden your skills for the care of families with newborns in Neonatal Units thanks to this TECH program”

04

Course Management

TECH has brought together in this Master's Degree true specialists in Neonatology with an extensive experience in health care, research and teaching. An exceptional team for their skills in the care of newborn patients in Critical Care Units, in the study of neurological diseases or in Vaccinology. A wide field of action that is reflected in the syllabus of this university program that will lead the graduate to obtain an update from the hand of the best experts.





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Authentic experts in Neonatology with extensive clinical, research and teaching experience make up this excellent Master's Degree in Neonatology”

Management



Dr. Baca Cots, Manuel

- ♦ Head of the Pediatrics and Neonatology Service at the Quirón Málaga Hospital
- ♦ Head of Neonatology at Dr. Gálvez Clinical Hospital
- ♦ Head of Neonatology at Quirón Murcia Hospital
- ♦ Head of Andalusian Health Service (SAS)
- ♦ Principal investigator of international multicenter projects
- ♦ Bachelor's Degree in Medicine from the University of Granada

Professors

Dr. Jiménez Alcántara, Carolina

- ♦ Medical Specialist in Pediatrics at the Regional University Hospital of Málaga
- ♦ Subspecialist in Pediatric Endocrinology
- ♦ Medical Specialist at the Quirónsalud Hospital
- ♦ Pediatrician at Santa Ana Hospital
- ♦ Basic Pediatrics Primary Care Team (EBAP)
- ♦ Bachelor's Degree in Medicine from the University of Málaga

Dr. Concheiro Guisán, Ana

- ♦ Head of the Pediatrics Department of the Álvaro Cunqueiro Hospital of Vigo
- ♦ Coordinator of Clinical Teaching in the Degree in Medicine at the University Hospital Complex of Vigo
- ♦ Doctor of Medicine from the University of Barcelona
- ♦ Coordinator of the Rare Diseases and Pediatric Medicine Group of the Galicia Sur Health Research Institute (IISGS)
- ♦ Member of the Vice-presidency of the Galician Council of Bioethics



Dr. Ramón Salguero, José Manuel

- ◆ Director of Pediatrics at the Andalusian Health Service
- ◆ Specialist in the Pediatrics Unit at the Carlos Haya Regional University Hospital
- ◆ Bachelor's Degree in Medicine from the University of Granada

Dr. García Sánchez, Rubén

- ◆ Responsible for Neonatal Infectious Diseases at the University Hospital of Salamanca
- ◆ Neonatologist Specialist at the University Hospital of Salamanca
- ◆ Member of the Recognized Research Group GIR of the IBSAL "Vaccine Research"
- ◆ Member of several national and international networks of Pediatric and Neonatal Research

Dr. Díez Delgado, Javier

- ◆ Clinical Manager of the Newborn Unit of the Maternal-Children's Hospital Princesa Leonor
- ◆ Head of the Critical Care and Pediatric Emergency Department of the Pediatrics Service at the Torrecárdenas Hospital in Almería
- ◆ Neonatologist at the Torrecárdenas Hospital
- ◆ Instructor in Pediatric and Neonatal CPR
- ◆ Principal investigator or collaborator in the Vaccinology and Neonatology lines
- ◆ Lecturer in the Master's Degree of Emergency Medicine at the UAL.
- ◆ Bachelor's Degree in Medicine and Surgery from the Faculty of Medicine of the University of Granada
- ◆ Member of: SPAO Board of Directors; SENEON Newborn Transport Working Group and Spanish Vaccinology Association

Dr. Ruiz Ramos, María José

- ♦ Attending Pediatrician at Quirón Málaga Hospital
- ♦ Specialist in the Pediatrics Unit
- ♦ Expert in Continuous Brain Monitoring
- ♦ Bachelor's Degree in Medicine from the University of Málaga specialized in Pediatrics

Dr. Porta Ribera, Roser

- ♦ Neonatologist at the Neonatal Unit at the Germans Trias i Pujol University Hospital
- ♦ Neonatologist at the Hospital Dexeus
- ♦ Coordinator of the Neonatal Unit at the Germans Trias i Pujol University Hospital
- ♦ Pediatrician in Neonatology at Hospital Germans Trias I Pujol
- ♦ Associate Professor of Pediatrics at the Autonomous University of Barcelona
- ♦ Bachelor's Degree in Medicine and Surgery from the University of Barcelona
- ♦ Diploma and Instructor in Neonatal CPR by SENeO
- ♦ Diploma in Pediatric CPR by the European Resuscitation Council

Dr. Pérez, Maribel

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

Dr. Valverde, Eva

- ♦ Head of the Neonatology Department at La Paz University Hospital
- ♦ Neonatologist at the Neonatology Department of La Paz University Hospital
- ♦ Specialist in Pediatrics at La Paz University Hospital
- ♦ Doctor of Medicine from the Autonomous University of Madrid
- ♦ Bachelor's Degree in Medicine from the Complutense University of Madrid
- ♦ Member of: European Working Group on Neonatal Cerebral Ultrasound (EUruS.Brain)





Dr. Jerez, Antonio

- ♦ Neonatologist Specialist at the Clinical Hospital of Granada
- ♦ Medical Specialist in Pediatrics
- ♦ Pediatric and Neonatal CPR Instructor
- ♦ Principal Investigator in clinical trial projects funded by the Ministry of Health and the Department of Pediatrics of the University of Granada
- ♦ Doctor of Medicine
- ♦ Member of the Hospital Quality Commissions for Transfusions and CPR

Dr. Gómez Rigal, José

- ♦ Head of the Immunology Service at the Clinical University Hospital of Santiago de Compostela
- ♦ Director of the Immunogenetics Laboratory
- ♦ Coordinator of the GENVIP Vaccine Research Group
- ♦ External Advisor to the Spanish Association of Pediatrics
- ♦ Auditor for the European Federation of Immunogenetics
- ♦ Member of the Committee of Experts in Precision Oncology of the Autonomous Community of Galicia

Dr. Rojas Fajardo, Cielo Carolina

- ♦ Pediatrician at the Quirónsalud Málaga Hospital
- ♦ Assistant Physician in Pediatric Electrophysiology
- ♦ Specialist in the Children's Cardiology Unit
- ♦ Specialist in Pediatrics and Child Care University Hospital of Caracas Central University of Venezuela
- ♦ Bachelor's Degree in Medicine from the Central University of Venezuela

05

Structure and Content

Thanks to the effectiveness of the Relearning method, used by this academic institution in all its programs, graduates will progress through the syllabus in a natural way, consolidating in a much simpler way the most important concepts on diagnostic and therapeutic procedures in newborn patients. In addition, with the extensive Virtual Library made up of cutting-edge teaching material, the medical professional will obtain a greater dynamism in this 12-month updating process in Neonatology.





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An academic itinerary that provides you with the update you are looking for in Neonatology under the maximum scientific rigor”

Module 1. Aspects of the Initial Moments Highlighted in Neonatology

- 1.1. Neonatal Assessments
- 1.2. Anatomical and Physiological Characteristics of the Newborn
- 1.3. Admission of the Newborn (NB) in the Neonatal Unit
- 1.4. Newborn Transport
- 1.5. Neonatal Resuscitation
- 1.6. Thermal Management in a Newborn
- 1.7. Hypothermia in the Newborn with Hypoxic-ischemic Encephalopathy as a Neuroprotective Measure
- 1.8. Pain Management in a Newborn
- 1.9. Newborn Skin Basic Elements
- 1.10. Child of a Mother with an Uncontrolled Pregnancy

Module 2. Respiratory Pathophysiology and Respiratory Diseases in Neonatology

- 2.1. Lung Development, Embryology, Anatomy and Physiology
- 2.2. Respiratory Pathology of Newborns
- 2.3. Respiratory Assistance and Mechanical Ventilation; Simple and High Flow Oxygen Therapy
- 2.4. Non-Invasive Ventilation (NIV)
- 2.5. New Ventilation Methods
- 2.6. Neonatal Resuscitation
- 2.7. Arrival of an Underweight Premature Newborn
- 2.8. Surfactant Deficiency Disease
- 2.9. Apnea of Prematurity
- 2.10. Bronchopulmonary Dysplasia

Module 3. Neonatal Shock and Sepsis; Cardiovascular Diseases and Congenital Heart Diseases in Neonatology

- 3.1. Early Neonatal Sepsis and Empirical Treatment of Early Sepsis
- 3.2. Late Onset Neonatal Sepsis
- 3.3. Basic Management of Late Onset Sepsis
- 3.4. Neonatal Shock
- 3.5. Pathophysiology of Neonatal Shock
- 3.6. Phases of Neonatal Shock and Specific Clinical Situations in the Neonatal Period
- 3.7. Treatment of Neonatal Shock
- 3.8. General Aspects of the Cardiovascular System; Physiology and Circulation; Prenatal Tachycardias
- 3.9. Persistent Pulmonary Hypertension (PPHN). Persistent Patent Ductus
- 3.10. Classification of the Congenital Heart Diseases: Cyanotic Heart Disease and the Aortic Arch

Module 4. Neurological Disorders in Neonatology; Neonatal Endocrinology, Dysmorphology and Oncology

- 4.1. Clinical Presentation of Seizures and their Diagnosis. Definition, Classification and Semiology of Seizures. Treatment of Neonatal Seizures
- 4.2. Introduction Hypoxic-Ischemic Encephalopathy. Pathophysiology and Phases of Hypoxic-Ischemic Brain Injury. Diagnosis of Perinatal HIE Supportive Treatment
- 4.3. Microcephaly. Definition and Approach to Etiological Diagnosis and Assessment of the Newborn with Hypotonia. Advances in the Approach to Etiological Diagnosis
- 4.4. Neurological Pathology of Premature Babies
- 4.5. Congenital Hypopituitarism
- 4.6. Newborn with Thyroid Disorders
- 4.7. Different Types of Screening for the Different Metabolopathies. Criteria for Including a Metabolopathy in Neonatal Screening
- 4.8. Screening Techniques: Handling During the Heel Prick Test
- 4.9. Chromosopathy and Study of Chromosomal Abnormalities
- 4.10. General Aspects of Neonatal Oncology; Neuroblastoma



Module 5. Digestive Disorders and Nutrition in Neonatology

- 5.1. General Information about Nutrition and Pathology of the Digestive System
- 5.2. Probiotics and Prebiotics
- 5.3. Digestive Pathology of Premature Babies: Necrotizing Enterocolitis
- 5.4. Diagnosis of Necrotizing Enterocolitis
- 5.5. Treatment of Necrotizing Enterocolitis
- 5.6. Complications and Prevention of Necrotizing Enterocolitis
- 5.7. Nutrition of the Premature Baby
- 5.8. Parenteral Feeding of Premature Babies
- 5.9. Breast Milk in Premature Babies
- 5.10. Oral Feeding of Premature Babies

Module 6. Hematologic Disorders in Neonatology

- 6.1. Neonatal Anemia
- 6.2. Polycythemia
- 6.3. Thrombocytopenia
- 6.4. Neonatal Hyperbilirubinemia: Definition and Concepts
- 6.5. Causes of Pathological Hyperbilirubinemia
- 6.6. Screening for Hyperbilirubinemia. Diagnostic Tests
- 6.7. Treatment of Hyperbilirubinemia
- 6.8. Introduction to Bleeding Disorders and Thrombosis
- 6.9. Hemorrhagic Disorders
- 6.10. Arterial and Venous Thrombosis in the Neonatal Period

Module 7. Renal Disorders in Neonatology and in the Internal Environment

- 7.1. Renal Embryology
- 7.2. Nephro-Urological Diseases
- 7.3. Acute Kidney Failure
- 7.4. Treatment of Acute Kidney Failure
- 7.5. Renal Replacement Therapies (RRT); Peritoneal Dialysis in the Newborn
- 7.6. Neonatal Arterial Hypertension
- 7.7. Fluid and Electrolyte Disorders
- 7.8. Electrolytes Sodium (Na⁺); Potassium (K⁺); Calcium (Ca⁺⁺)
- 7.9. Neonatal Hypoglycemia
- 7.10. Asymptomatic Hypoglycemia

Module 8. The Preterm/Premature Baby

- 8.1. Etiopathogenesis of Prematurity
- 8.2. Evaluation of the Fetal Causes of Prematurity
- 8.3. Persistent Ductus Arteriosus
- 8.4. Retinopathy of Prematurity
- 8.5. Screening; Ophthalmologic Treatment
- 8.6. Hematologic Pathology
- 8.7. Anemia Treatment
- 8.8. Metabolic and Neuroendocrine Disorder of Premature Babies
- 8.9. Hospital Discharge
- 8.10. Long-Term Follow-Up and Chronic Problems of Premature Babies



Module 9. Neonatal Infections

- 9.1. Nosocomial Infections
- 9.2. Meningitis
- 9.3. Skin Infections
- 9.4. Infections of the Locomotor System
- 9.5. Urinary Infections
- 9.6. TORCH Complex Infections
- 9.7. Respiratory Infections
- 9.8. The Laboratory and Neonatal Infections
- 9.9. Treatment
- 9.10. New Neonatal Infections Emerging in the 21st Century

Module 10. Fetal and Newborn Immunology

- 10.1. Development of the Immune System
- 10.2. Formation of the Various Components of the Immune System
- 10.3. Immunological Mechanisms Specific to this Time of Life
- 10.4. Maternal-Fetal Exchange
- 10.5. Immunologic Consequences of Intrauterine Infections
- 10.6. Immunological Assessment of the Newborn
- 10.7. Congenital Syndromes of Humoral Immunodeficiencies
- 10.8. Congenital Cell-Mediated Immunodeficiency Syndromes
- 10.9. The Pregnant Woman, the Fetus and Vaccines
- 10.10. The Application of New Technologies to this Field of Perinatology



Extend your knowledge of Nephro-Urological Disorders in the Newborn with a unique university degree"

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.



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

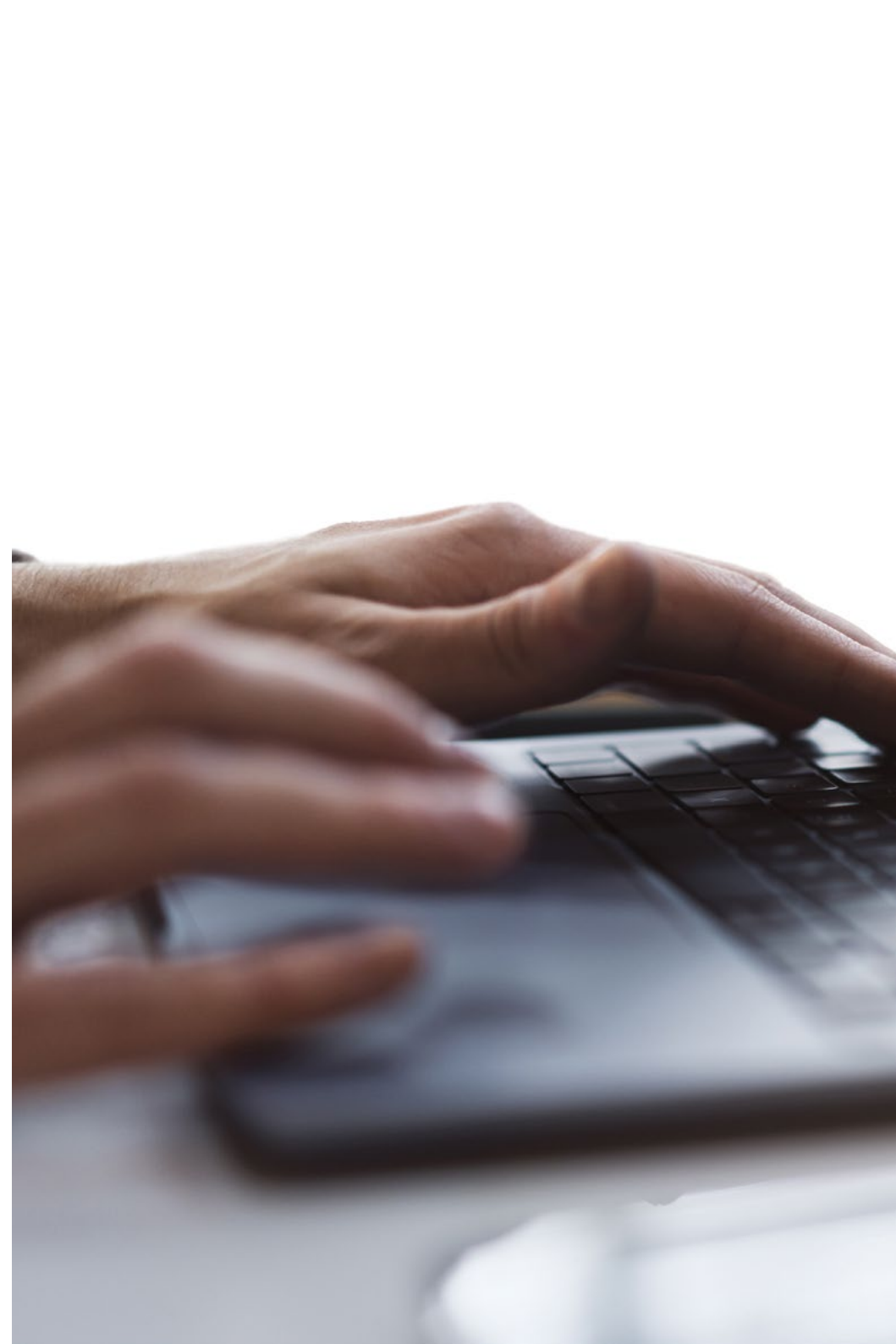
The student: the priority of all TECH programs

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 quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, 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.

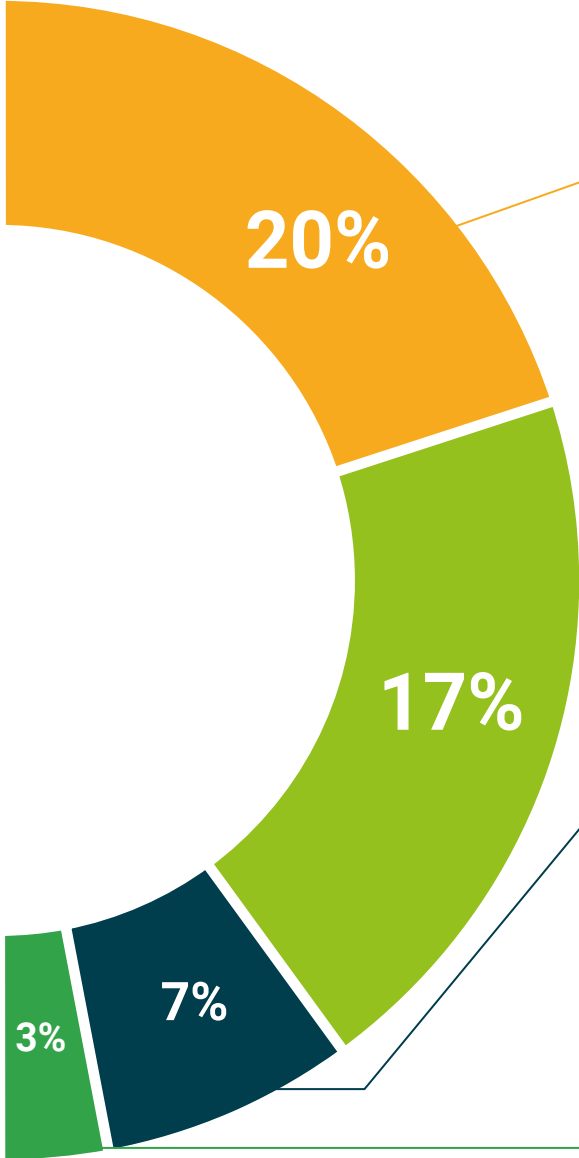
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Certificate

The Master's Degree in Neonatology guarantees students, in addition to the most rigorous and up-to-date education, access to a Master's Degree 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 private qualification will allow you to obtain a **Master's Degree diploma in Neonatology** 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 Neonatology**

Modality: **online**

Duration: **12 months**

Accreditation: **60 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.



Master's Degree Neonatology

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

Master's Degree Neonatology

