

Master's Degree

Speech Therapy and Orofacial Neurorehabilitation



Master's Degree Speech Therapy and Orofacial Neurorehabilitation

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

Website: www.techtitude.com/us/education/master-degree/master-degree-speech-therapy-orofacial-neurorehabilitation



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01

Introduction to the Program

The voice is an essential tool for communication and expression, making its care crucial in the face of various existing pathologies. In this context, educators play a critical role in detecting potential vocal dysfunctions in their students. However, to do so effectively, constant updating is essential. According to the World Health Organization, up to 5% of the global population suffers from some form of voice disorder, affecting their quality of life. For this reason, TECH has designed an innovative Master's Degree in Speech Therapy and Orofacial Neurorehabilitation. Additionally, it is offered in a convenient online format.



A close-up, soft-focus photograph of a young child's face, showing the eye, ear, and part of the nose and mouth. The child has light skin and blonde hair. The image is partially obscured by a diagonal white line that separates it from a red background on the right.

“

*With this 100% online Master's Degree, you
will design individualized Speech Therapy
and Orofacial Neurorehabilitation programs”*

The role of the educator is fundamental in the development of numerous basic functions in children. Beyond the academic setting, the teacher plays a key role in the early detection of disorders in their students. Their knowledge of child development, combined with their experience, enables them to identify dysfunctions in essential instruments like the voice. According to the World Health Organization, voice disorders affect approximately 5% of the global population, highlighting the importance of early intervention. In this sense, the educator becomes a key figure in managing these issues, contributing to treatment and rehabilitation through specific techniques.

For this reason, TECH presents the Master's Degree in Speech Therapy and Orofacial Neurorehabilitation. Throughout the program, educators will specialize in fundamental aspects such as the anatomy and physiology of the voice, advanced therapies in vocal rehabilitation, specific approaches for students with Autism Spectrum Disorder (ASD), and recommended dietary guidelines for children with autism. As such, graduates will acquire advanced competencies to design personalized Speech Therapy and Orofacial Neurorehabilitation programs.

Thanks to its innovative design based on cutting-edge educational technology, this university program offers a dynamic and accessible learning experience. Educators will be able to reinforce their knowledge with complementary audiovisual material, real clinical cases, explanatory videos, and specialized theoretical guides. All of these resources make this program from TECH the most comprehensive academic option available.

This **Master's Degree in Speech Therapy and Orofacial Neurorehabilitation** contains the most complete and up-to-date educational program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in NSpeech Neurorehabilitation and Orofacial Therapy
- ♦ 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



Learn the foundations of the nervous system and how to apply them in effective speech therapy treatments"

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You will master specific therapeutic techniques to treat conditions such as Dysarthria or Aphasia”

Thanks to the Relearning methodology, you will be able to study all the contents of this program from the comfort of your home and without the need to move to a learning center.

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

The teaching staff includes professionals from the field of Orofacial Neurorehabilitation and Speech Therapy, who bring their extensive practical experience to the program, alongside renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive learning experience designed to prepare for real-life situations.

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



02

Why Study at TECH?

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



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

The world's best online university, according to FORBES

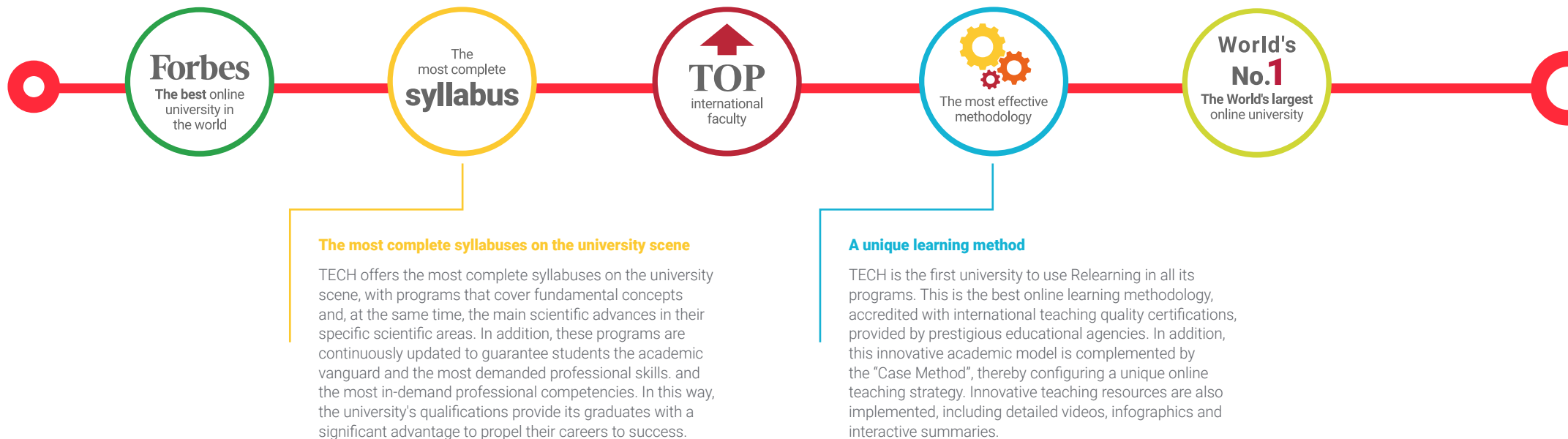
The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer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

The best top international faculty

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

The world's largest online university

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



The official online university of the NBA

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

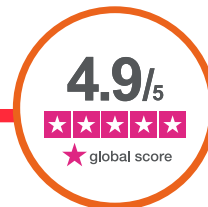
Leaders in employability

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



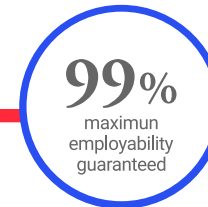
Google Premier Partner

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



The top-rated university by its students

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



03

Syllabus

The structure of the content has been designed by experts in Orofacial Neurorehabilitation and Speech Therapy, integrating the latest scientific advancements. The academic itinerary will delve into topics ranging from the fundamentals of neuropsychological rehabilitation and voice physiology to the design of intervention programs for addressing conditions such as Dysphonia. In this way, graduates will be equipped to intervene effectively in complex disorders of language, voice, and swallowing, applying evidence-based therapeutic approaches.





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Discover how the brain adapts after an injury and utilize innovative strategies to enhance the recovery of language and communication”

Module 1. Introduction to Neurorehabilitation I: Basic Fundamentals of Neuroanatomy

- 1.1. History of Brain Discovery
 - 1.1.1. Introduction
 - 1.1.2. Stages in Brain History: Mind vs. Brain
 - 1.1.2.1. From Antiquity to the 2nd Century
 - 1.1.2.2. From the 2nd to the 17th Century
 - 1.1.2.3. From the 19th Century to the Present
 - 1.1.3. A Modern Vision of the Brain
 - 1.1.4. Neuropsychological Rehabilitation
 - 1.1.5. Conclusions
 - 1.1.6. Bibliography
- 1.2. Introduction to the Nervous System
 - 1.2.1. Introduction
 - 1.2.2. Neurons
 - 1.2.2.1. Cell Anatomy
 - 1.2.2.2. Cell Functions
 - 1.2.2.3. Classification of Neurons
 - 1.2.2.4. Support Cells or Glia
 - 1.2.3. Transmitting Information
 - 1.2.3.1. Action Potentials
 - 1.2.3.1.1. Resting Potential
 - 1.2.3.1.2. Action Potential
 - 1.2.3.1.3. Postsynaptic Potential, Local or Graded
 - 1.2.4. Neuronal Circuits
 - 1.2.5. Hierarchical Neural Organization
 - 1.2.5.1. Introduction
 - 1.2.5.2. Characteristics
 - 1.2.6. Brain Plasticity
 - 1.2.7. Conclusions
- 1.3. Neurodevelopment
 - 1.3.1. Introduction
 - 1.3.2. Phases in Brain Development
 - 1.3.2.1. Neurogenesis: Proliferation
 - 1.3.2.2. Cell Migration
 - 1.3.2.3. Cell Differentiation
 - 1.3.2.4. Synaptogenesis
 - 1.3.2.5. Apoptosis: Neuronal Death
 - 1.3.2.6. Myelination
 - 1.3.3. Brain Maturation from Birth to Adolescence
 - 1.3.4. Actuation Systems in Newborns: Reflexes
 - 1.3.5. Alert Signals
 - 1.3.6. Conclusions
 - 1.3.7. Bibliography
- 1.4. Central Nervous System
 - 1.4.1. Introduction
 - 1.4.2. Peripheral Nervous System
 - 1.4.3. Central Nervous System
 - 1.4.3.1. CNS Protection System: Meninges
 - 1.4.3.2. Irrigation of the CNS
 - 1.4.3.3. Spinal Cord
 - 1.4.3.4. Brain
 - 1.4.3.4.1. Introduction
 - 1.4.3.4.2. Structure
 - 1.4.3.4.2.1. Brain Stem
 - 1.4.3.4.2.2. Rhombencephalon or Hindbrain
 - 1.4.3.4.2.3. Mesencephalon or Midbrain
 - 1.4.3.4.2.4. Prosencephalon or Forebrain
 - 1.4.4. Conclusions
 - 1.4.5. Bibliography

- 1.5. Structural and Functional Organization of the Cerebral Cortex
 - 1.5.1. Introduction
 - 1.5.2. Brodmann Map
 - 1.5.3. Brain Hemispheres and Cerebral Cortex: Structural Organization
 - 1.5.3.1. Circumvolutions and Main Sulci: Cerebral Lobes
 - 1.5.3.2. Structure of the Cerebral Cortex
 - 1.5.3.3. White Matter
 - 1.5.3.3.1. Association Fibers
 - 1.5.3.3.2. Commissural Fibers
 - 1.5.3.3.3. Projection Fibers
 - 1.5.4. Cortical Areas: Functional Organization
 - 1.5.5. Conclusions
 - 1.5.6. Bibliography
- 1.6. Spinal Cord Pathways
 - 1.6.1. Spinal Cord
 - 1.6.2. Ascending Cord Pathways
 - 1.6.3. Anatomical Organization
 - 1.6.4. Functions and Lesions of the Ascending Pathways
 - 1.6.5. Descending Cord Pathways
 - 1.6.6. Anatomical Organization
 - 1.6.7. Descending Tract Functions
 - 1.6.8. Descending Tract Lesions
 - 1.6.9. Sensory Receptors
 - 1.6.10. Anatomical Types of Receptors
- 1.7. Cranial Nerves
 - 1.7.1. Essential Basic Vocabulary
 - 1.7.2. History
 - 1.7.3. Introduction
 - 1.7.4. Nerve Components
 - 1.7.5. Classification of Cranial Nerves
 - 1.7.6. Pathologies
 - 1.7.7. Summary
- 1.8. Spinal Nerves
 - 1.8.1. Introduction
 - 1.8.2. Components
 - 1.8.3. Dermatomes
 - 1.8.4. Plexus
 - 1.8.5. Cervical Plexus
 - 1.8.6. Brachial Plexus
 - 1.8.7. Lumbar Plexus
 - 1.8.8. Sacral Plexus
 - 1.8.9. Pathologies
- 1.9. Autonomic Nervous System
 - 1.9.1. Basic Vocabulary
 - 1.9.2. General Overview
 - 1.9.3. Functions of the ANS (Autonomic Nervous System)
 - 1.9.4. Somatic Nervous System vs. Autonomic Nervous System
 - 1.9.5. Organization
 - 1.9.6. Sympathetic ANS
 - 1.9.7. Parasympathetic ANS
 - 1.9.8. Enteric Nervous System
 - 1.9.9. ANS Disorders
- 1.10. Motor Control
 - 1.10.1. Somatosensory System
 - 1.10.2. Upper Motor Circuit
 - 1.10.3. Movement
 - 1.10.4. Introduction to Motor Control
 - 1.10.5. Clinical Applications of Motor Control and Learning in Neurorehabilitation
 - 1.10.6. Neurological Impairment
 - 1.10.7. Global Summary

Module 2. Introduction to Neurorehabilitation II: Relationship with Speech Therapy Treatment

- 2.1. Etiology of Brain Damage
 - 2.1.1. Introduction
 - 2.1.2. Vascular Disorders
 - 2.1.2.1. Occlusive Syndromes
 - 2.1.2.2. Types of Cerebrovascular Disease
 - 2.1.2.3. Neuropsychological Disorders in CVA
 - 2.1.3. Intracranial Neoplasms
 - 2.1.3.1. General Characteristics
 - 2.1.3.2. Tumor Classification
 - 2.1.3.3. Neuropsychological Disorders in Tumours
 - 2.1.4. Traumatic Brain Injuries (TBI)
 - 2.1.4.1. General Characteristics
 - 2.1.4.2. Types of TBI
 - 2.1.4.3. Alterations in TBI
 - 2.1.5. Neurodegenerative Diseases
 - 2.1.5.1. General Characteristics
 - 2.1.5.2. Types and Disorders
 - 2.1.6. Epilepsy
 - 2.1.6.1. General Characteristics
 - 2.1.6.2. Classification
 - 2.1.7. Central Nervous System Infections
 - 2.1.7.1. General Characteristics
 - 2.1.7.2. Classification
 - 2.1.8. Cerebrospinal Fluid Circulation and Disorders
 - 2.1.8.1. General Characteristics
 - 2.1.8.2. Disorders
 - 2.1.9. Global Summary





2.2. Cognitive Functions I: Attention, Perception and Memory

2.2.1. Introduction to Cognitive Functions

2.2.2. Alert System

2.2.2.1. Concept

2.2.2.2. Assessment

2.2.2.3. Abnormalities

2.2.3. Attention

2.2.3.1. Focused/Selective Attention

2.2.3.1.1. Concept

2.2.3.1.2. Assessment

2.2.3.1.3. Abnormalities

2.2.3.2. Sustained Attention

2.2.3.2.1. Concept

2.2.3.2.2. Assessment

2.2.3.2.2. Abnormalities

2.2.3.3. Alternating Attention

2.2.3.3.1. Concept

2.2.3.3.2. Assessment

2.2.3.3.3. Abnormalities

2.2.3.4. Divided Attention

2.2.3.4.1. Concept

2.2.3.4.2. Assessment

2.2.3.4.3. Abnormalities

2.2.4. Memory

2.2.4.1. Concept

2.2.4.2. Process

2.2.4.3. Classification

2.2.4.4. Assessment

2.2.4.5. Abnormalities

2.2.5. Perception

2.2.5.1. Concept

2.2.5.2. Assessment

2.2.5.3. Abnormalities

2.3. Cognitive Functions II: Language and Executive Functions

- 2.3.1. Conceptualization of Executive Functions
- 2.3.2. Executive Functions Assessment
- 2.3.3. Executive Function Disorders
- 2.3.4. Dorsolateral Prefrontal Syndrome
- 2.3.5. Orbitofrontal Syndrome
- 2.3.6. Mesial Frontal Syndrome
- 2.3.7. Conceptualization of Language
- 2.3.8. Language Assessment
- 2.3.9. Language Impairment

2.4. Neuropsychological Assessment

- 2.4.1. Introduction
- 2.4.2. Neuropsychological Assessment Objectives
- 2.4.3. Assessment Variables
- 2.4.4. Brain Injury: Diffuse vs. Local
- 2.4.5. Localization and Size of the Lesion
- 2.4.6. Depth of the Lesion
- 2.4.7. Distant Effects of the Injury
- 2.4.8. Disconnection Syndrome
- 2.4.9. Injury Time Evolution
- 2.4.10. Intrinsic Patient-Related Variables
- 2.4.11. Quantitative Evaluation vs. Qualitative Evaluation
- 2.4.12. Stages in Neuropsychological Assessment
- 2.4.13. Clinical History and Establishing Therapeutic Relationships
- 2.4.14. Test Administration and Correction
- 2.4.15. Analyzing and Interpreting Results, Preparing Reports and Returning Information

2.5. Neuropsychological Rehabilitation and Speech Therapy Applications

- 2.5.1. Neuropsychological Rehabilitation I: Cognitive Functions
 - 2.5.1.1. Introduction
- 2.5.2. Attention and Perception
 - 2.5.2.1. Training Attention Processes
 - 2.5.2.2. Effectiveness
 - 2.5.2.3. Virtual Reality

2.5.3. Memory

- 2.5.3.1. Basic Principles
- 2.5.3.2. Memory Strategies
- 2.5.3.3. Virtual Reality

2.5.4. Praxis

- 2.5.4.1. Stimulation Strategies
- 2.5.4.2. Specific Tasks

2.5.5. Language

- 2.5.5.1. General Advice
- 2.5.5.2. Specific Tasks

2.5.6. Executive Functions U.S

- 2.5.6.1. General Advice
- 2.5.6.2. EF Stimulation U.S.A:
 - 2.5.6.2.1. Sohlberg and Mateer
 - 2.5.6.2.2. Executive Deficit Treatment Techniques
- 2.5.6.3. Specific Tasks
- 2.5.6.4. Effectiveness

2.5.7. Summary

2.5.8. Bibliography

2.6. Behavioral Rehabilitation and Its Application in Speech

2.6.1. Introduction

- 2.6.1.1. E-R-C Reference Model
- 2.6.1.2. Orientations/Currents
- 2.6.1.3. Behavior Modification Characteristics
- 2.6.1.4. Behavior Modification Techniques: General Use/Specific Use

2.6.2. Behavioral Assessment: Observation

- 2.6.2.1. Define Target Behavior
- 2.6.2.2. Choose Measurement Methods
- 2.6.2.3. Record Sheets
- 2.6.2.4. Contextual Aspects of What Is Observed

2.6.3. Operant Techniques: Behavioral Development

2.6.3.1. Introduction

2.6.3.2. Theoretical Concepts

2.6.3.3. Reinforcement Programs

2.6.3.4. Molding

2.6.3.5. Chaining

2.6.3.6. Fading

2.6.3.7. Negative Reinforcement

2.6.3.8. Areas of Application

2.6.4. Operant Techniques: Behavior Reduction

2.6.4.1. Introduction

2.6.4.2. Extinction

2.6.4.3. Time Off

2.6.4.4. Cost of Response

2.6.4.5. Areas of Application

2.6.5. Operant Techniques: Contingency Organization Systems

2.6.5.1. Introduction

2.6.5.2. Token Economy

2.6.5.3. Behavioral Contracts

2.6.5.4. Areas of Application

2.6.6. Modeling Techniques

2.6.6.1. Introduction

2.6.6.2. Procedure

2.6.6.3. Modeling Techniques

2.6.6.4. Areas of Application

2.6.7. Frequent Behavior in Logopedics

2.6.7.1. Impulsivity

2.6.7.2. Apathy

2.6.7.3. Disinhibition

2.6.7.4. Anger or Aggressiveness

2.6.8. Conclusions

2.7. Occupational Therapy Rehabilitation and Its Application in Speech Therapy

2.7.1. Occupational Therapy

2.7.2. Body Posture in Speech Therapy

2.7.3. Body Posture

2.7.4. Adaptations in Body Posture

2.7.5. Techniques in Neurorehabilitation: Bobath, Affolter, Basal Stimulation

2.7.6. Adaptations/Assistive Products Useful in Speech Therapy Rehabilitation

2.7.7. Objective of Occupational Therapy as an Integrative Measure

2.8. Child Neuropsychology

2.8.1. Introduction

2.8.2. Child Neuropsychology: Definition and General Fundamentals

2.8.3. Etiology

2.8.3.1. Genetic and Environmental Factors

2.8.3.2. Classification

2.8.3.2.1. Neurodevelopmental Disorders

2.8.3.2.2. Acquired Brain Injury

2.8.4. Neuropsychological Assessment

2.8.4.1. General Aspects and Assessment Phase

2.8.4.2. Evaluation Tests

2.8.5. Neuropsychological Intervention

2.8.5.1. Family Intervention

2.8.5.2. Educational Intervention

2.8.6. Cognitive Function Development

2.8.6.1. First Childhood (0-2 Years of Age)

2.8.6.2. Preschool Period (2-6 Years of Age)

2.8.6.3. School Period (6-12 Years of Age)

2.8.6.4. Adolescence (12-20 Years of Age)

2.8.7. Conclusions

2.8.8. Bibliography

2.9. Family Approach and Therapy

2.9.1. Introduction

2.9.2. Family Care in the Acute and Sub-Acute Phase

2.9.2.1. Acute Phase: Hospital Stay

2.9.2.2. Sub-Acute Phase: Return Home

2.9.2.3. What about after Rehabilitation?

- 2.9.3. The Family as Part of the Rehabilitation Process
- 2.9.4. Needs Posed by the Family during the Rehabilitation Process
- 2.9.5. The Rehabilitation Team
- 2.9.6. Conclusions
- 2.9.7. Bibliography
- 2.10. A Transdisciplinary Rehabilitation Example: Clinical Case
 - 2.10.1. Clinical Case
 - 2.10.2. Theories of a TBI (Traumatic Brain Injury)
 - 2.10.3. Broca's Aphasia: Anatomopathological Correlates and Disorders Associated with Broca's Aphasia
 - 2.10.4. Neuropsychological Assessment
 - 2.10.5. Neuropsychological Profile
 - 2.10.6. Results
 - 2.10.7. Deficits and Potentials
 - 2.10.8. Injury Course and Treatment
 - 2.10.9. Specific Objectives for Patients with Broca's Aphasia
 - 2.10.10. Fundamentals of Rehabilitation

Module 3. Anatomy and Physiology of the Voice. Vocal Chord Status

- 3.1. Voice Anatomy
 - 3.1.1. Laryngeal Anatomy
 - 3.1.2. Respiratory Structures Involved in Phonation
 - 3.1.2.1. Thorax
 - 3.1.2.2. Airway Management
 - 3.1.2.3. Respiratory Muscles
 - 3.1.3. Laryngeal Structures Involved in Phonation
 - 3.1.3.1. Laryngeal Skeleton
 - 3.1.3.2. Cartilage
 - 3.1.3.3. Joints
 - 3.1.3.4. Musculature
 - 3.1.3.5. Innervation
 - 3.1.4. Structures of the Vocal Tract Involved in Phonation
 - 3.1.4.1. Linear Source-Filter Model
 - 3.1.4.2. Non-Linear Source-Filter Model

- 3.2. Voice Physiology
 - 3.2.1. Histology of Vocal Folds
 - 3.2.2. Biomechanical Properties of the Vocal Folds
 - 3.2.3. Myoelastic Mucocondulatory Theory and Aerodynamic Theory
- 3.3. Pathological Voice
 - 3.3.1. Euphonia vs Dysphonia
 - 3.3.2. Vocal Fatigue
 - 3.3.3. Acoustic Signs of Dysphonia
 - 3.3.4. Classification of Dysphonia
- 3.4. Medical-Surgical Treatment
 - 3.4.1. Phonosurgery
 - 3.4.2. Laryngeal Surgery
 - 3.4.3. Medication in Dysphonia
- 3.5. Physical and Acoustic Aspects
 - 3.5.1. Physical Aspects of the Voice
 - 3.5.1.1. Types of Waves
 - 3.5.1.2. Physical Properties of Sound Waves: Amplitude and Frequency
 - 3.5.1.3. Transmission of Sound
 - 3.5.2. Acoustic Voice Aspects
 - 3.5.2.1. Intensity
 - 3.5.2.2. Pitch
 - 3.5.2.3. Quality
- 3.6. Objective Voice Assessment
 - 3.6.1. Morphofunctional Exploration
 - 3.6.2. Electroglottography
 - 3.6.3. Aerodynamic Measures
 - 3.6.4. Electromyography
 - 3.6.5. Videochemography
 - 3.6.6. Acoustic Analysis
- 3.7. Perceptual Assessment
 - 3.7.1. GRBAS
 - 3.7.2. RASAT
 - 3.7.3. GBR Score
 - 3.7.4. CAPE-V
 - 3.7.5. VPAS



- 3.8. Functional Assessment
 - 3.8.1. Fundamental Frequency
 - 3.8.2. Phonetogram
 - 3.8.3. Maximum Phonatory Times
 - 3.8.4. Velopharyngeal Efficiency
 - 3.8.5. Voice Handicap Index (VHI)
- 3.9. Vocal Quality Assessment
 - 3.9.1. Vocal Quality
 - 3.9.2. High-Quality Voice vs. Low-Quality Voice
 - 3.9.3. Vocal Quality Assessment in Voice Professionals
- 3.10. Medical History
 - 3.10.1. The Importance of the Clinical History
 - 3.10.2. Characteristics of the Initial Interview
 - 3.10.3. Medical History Sections and Voice Implications
 - 3.10.4. Proposal of a Model of Anamnesis for Vocal Pathology

Module 4. Vocal Rehabilitation

- 4.1. Speech Therapy Treatment for Functional Dysphonias
 - 4.1.1. Type I: Isometric Laryngeal Disorder
 - 4.1.2. Type II: Glottic and Supraglottic Lateral Contraction
 - 4.1.3. Type III: Anteroposterior Supraglottic Contraction
 - 4.1.4. Type IV: Conversion Aphonia/Dysphonia and Psychogenic Dysphonia with Arched Vocal Cords
 - 4.1.5. Transitional Adolescent Dysphonia
- 4.2. Speech Therapy Treatment for Organic Dysphonias
 - 4.2.1. Introduction
 - 4.2.2. Speech Therapy in Congenital Origin Dysphonias
 - 4.2.3. Speech Therapy in Acquired Origin Dysphonias
- 4.3. Speech Therapy Treatment for Organic-Functional Dysphonias
 - 4.3.1. Introduction
 - 4.3.2. Objectives in the Rehabilitation of Organic-Functional Pathologies
 - 4.3.3. Proposal of Exercises and Techniques according to the Rehabilitation Objective
- 4.4. Voice in Acquired Neurological Problems
 - 4.4.1. Dysphonias of Neurological Origin
 - 4.4.2. Speech Therapy Treatment

- 4.5. Child Dysphonia
 - 4.5.1. Anatomical Characteristics
 - 4.5.2. Vocal Characteristics
 - 4.5.3. Intervention
- 4.6. Hygiene Therapy
 - 4.6.1. Introduction
 - 4.6.2. Harmful Habits and Their Effect on the Voice
 - 4.6.3. Preventive Measures
- 4.7. Semi-Occluded Vocal Tract Exercises
 - 4.7.1. Introduction
 - 4.7.2. Rationale
 - 4.7.3. TVSO
- 4.8. *Estill Voice Training*
 - 4.8.1. Jo Estill and the Creation of the Model
 - 4.8.2. Principles of *Estill Voice Training*
 - 4.8.3. Description
- 5.2.5. Multidisciplinary Work
- 5.2.6. Warning Symptomatology
- 5.2.7. Premature Orofacial Development
- 5.2.8. Feeding Methods: Parenteral, Enteral, Tube, Gastrectomy, Oral (Modified or Unmodified Diet)
- 5.2.9. Gastroesophageal Reflux
- 5.3. Neurodevelopment and Infant Diets
 - 5.3.1. Embryonic Development
 - 5.3.2. Appearance of Main Primary Functions
 - 5.3.3. Risk Factors
 - 5.3.4. Evolutionary Milestones
 - 5.3.5. Synaptic Function
 - 5.3.6. Immaturity
 - 5.3.7. Neurological Maturity
- 5.4. Brain-- Motor Skills
 - 5.4.1. Innate Orofacial Motor Skills
 - 5.4.2. Evolution of Orofacial Motor Patterns
 - 5.4.3. Reflex Swallowing
 - 5.4.4. Reflex Breathing
 - 5.4.5. Reflex Suction
 - 5.4.6. Assessing Infant Oral Reflexes
- 5.5. Nursing
 - 5.5.1. Early Initiation
 - 5.5.2. Orofacial Impact
 - 5.5.3. Exclusivity
 - 5.5.4. Optimal Nutrition
 - 5.5.5. Spontaneous Maturation of Oral Musculature
 - 5.5.6. Muscle Mobility and Synergy
 - 5.5.7. Position
 - 5.5.8. Therapeutic Recommendations
 - 5.5.9. Intellectual Development
 - 5.5.10. Intervention Program

Module 5. Orofacial/Myofunctional Therapy (OMT) and Early Intervention

- 5.1. Neonatal Development
 - 5.1.1. Evolutionary Development in Neonates
 - 5.1.2. NBAS. Neonatal Behavioral Assessment Scale
 - 5.1.3. Early Diagnosis
 - 5.1.4. Neurologic Diagnosis
 - 5.1.5. Habituation
 - 5.1.6. Oral Motor Reflexes
 - 5.1.7. Body Reflexes
 - 5.1.8. Vestibular System
 - 5.1.9. Social and Interactive Media
 - 5.1.10. Use of NBAS in High-Risk Newborns
- 5.2. Eating Disorders in Children
 - 5.2.1. Feeding Processes
 - 5.2.2. Pediatric Swallowing Physiology
 - 5.2.3. Phases in Skill Acquisition
 - 5.2.4. Deficits

- 5.6. Early Feeding Techniques
 - 5.6.1. Newborn Feeding
 - 5.6.2. Positioning Techniques
 - 5.6.3. Signs of Good Positioning
 - 5.6.4. Key Therapeutic Recommendations
 - 5.6.5. Milk and Non-Milk Formulas
 - 5.6.6. Classification of Formulas
 - 5.6.7. Bottle Feeding Techniques
 - 5.6.8. Spoon Techniques
 - 5.6.9. Techniques for Low-Cut Cup Use
 - 5.6.10. Techniques Tube Use or Alternative Feeding Systems
- 5.7. Speech Therapy Intervention in Neonates
 - 5.7.1. Primary Functions Assessment
 - 5.7.2. Re-Education of Primary Neuromotor Dysfunctions
 - 5.7.3. Primary Intervention
 - 5.7.4. Individual Treatment Planning and Coordination
 - 5.7.5. Oral Motor Exercise Program I
 - 5.7.6. Oral Motor Exercise Program II
 - 5.7.7. Intervention with Families
 - 5.7.8. Early Motor Activation
- 5.8. Child Swallowing Disorders I
 - 5.8.1. Intake Analysis
 - 5.8.2. Malnutrition
 - 5.8.3. Respiratory Infections. Airway Unit
 - 5.8.4. Complementary Explorations
 - 5.8.5. Quantitative Explorations
 - 5.8.6. Nutritional Treatment
 - 5.8.7. Adaptive Treatment: Posture, Texture, Materials
 - 5.8.8. Performance Program

- 5.9. Rehabilitative Treatment of Infant Oropharyngeal and Esophageal Dysphagia
 - 5.9.1. Symptoms
 - 5.9.2. Etiology
 - 5.9.3. Neurological Damage in Children: High Probability of Presenting a Disorder
 - 5.9.4. Dysphagia in Infants
 - 5.9.5. Phases of Normalized Swallowing in Pediatrics vs. Pathological Swallowing
 - 5.9.6. Neurological Maturity: Cognitive, Emotional, and Motor Coordination Status
 - 5.9.7. Impossibility of Oral Feeding
 - 5.9.8. Early care. High Probability of Recovering
- 5.10. Child Swallowing Disorders II
 - 5.10.1. Types Neuroanatomical and Behavior-Based Classification
 - 5.10.2. Functional Maturational Dysphagia
 - 5.10.3. Degenerative Diseases
 - 5.10.4. Cardiorespiratory Pathologies
 - 5.10.5. Congenital Brain Damage
 - 5.10.6. Childhood Acquired Brain Injury (CABI)
 - 5.10.7. Craniofacial Syndromes
 - 5.10.8. Autism Spectrum Disorders

Module 6. Evaluation and Intervention in Neurologic Dysphagia in Adults

- 6.1. Swallowing: Definition and Anatomy
 - 6.1.1. Definition of Swallowing
 - 6.1.2. Swallowing Anatomy: Structures
 - 6.1.2.1. Oral Cavity
 - 6.1.2.2. Pharynx
 - 6.1.2.3. Larynx
 - 6.1.2.4. Esophageal
 - 6.1.3. Swallowing Anatomy: Neurological Control
 - 6.1.3.1. Central Nervous System
 - 6.1.3.2. Cranial Nerves
 - 6.1.3.3. Autonomic Nervous System

- 6.2. Swallowing: The Swallowing Process
 - 6.2.1. Phases of Swallowing
 - 6.2.1.1. Pre-Oral Phase
 - 6.2.1.2. Oral Phase
 - 6.2.1.2.1. Oral Preparatory Phase
 - 6.2.1.2.2. Oral Transport Phase
 - 6.2.1.3. Pharyngeal Phase
 - 6.2.1.4. Esophageal Phase
 - 6.2.2. Valve System
 - 6.2.3. Biomechanics of Swallowing
 - 6.2.3.1. Swallowing Liquids
 - 6.2.3.2. Swallowing Semi-Solids
 - 6.2.3.3. Swallowing Solids: Mastication
 - 6.2.4. Breathing-Swallowing Coordination
- 6.3. Introduction to Dysphagia
 - 6.3.1. Definition
 - 6.3.2. Etiology and Prevalence
 - 6.3.2.1. Functional Causes
 - 6.3.2.2. Organic Causes
 - 6.3.3. Classification
 - 6.3.3.1. Types of Dysphagia
 - 6.3.3.2. Severity of Dysphagia
 - 6.3.4. Differentiation of Structural Dysphagia vs. Neurogenic Dysphagia
 - 6.3.5. Signs and Symptoms of Dysphagia
 - 6.3.6. Safety and Efficacy Concepts
 - 6.3.6.1. Safety Complications
 - 6.3.6.2. Efficacy Complications
 - 6.3.7. Brain Damage Dysphagia
 - 6.3.8. Dysphagia in the Elderly





- 6.4. Medical Assessment of Dysphagia
 - 6.4.1. Medical Anamnesis
 - 6.4.2. Scales of Assessment and Screening
 - 6.4.2.1. EAT-10
 - 6.4.2.2. V-VST. Volume-Viscosity Swallow Test
 - 6.4.2.2.1. How to Perform the V-VST
 - 6.4.2.2.2. Useful Tips when Using V-VST
 - 6.4.3. Instrumental Tests
 - 6.4.3.1. Fibroendoscopy (FEES)
 - 6.4.3.2. Videofluoroscopy (VFS)
 - 6.4.3.3. Fibroendoscopy vs. Videofluoroscopy
 - 6.4.3.4. Pharyngoesophageal Manometry
- 6.5. Speech Therapy Assessment of Dysphagia
 - 6.5.1. Anamnesis
 - 6.5.2. General Patient Assessment
 - 6.5.2.1. Physical Examination
 - 6.5.2.2. Cognitive Examination
 - 6.5.3. Clinical Patient Exploration
 - 6.5.3.1. Structural Assessment
 - 6.5.3.2. Oral Motor and Sensory Examination
 - 6.5.3.3. Cranial Nerves Assessment
 - 6.5.3.4. Reflex Assessment
 - 6.5.3.5. Exploring Swallowing by Phases (without Bolus)
 - 6.5.3.6. Using Auscultation and Sound Assessment
 - 6.5.3.7. Respiratory and Phonation Assessment
 - 6.5.4. Tracheostomy Patient Assessment
 - 6.5.5. Severity and Quality of Life Scales

- 6.6. Nutritional Status Assessment
 - 6.6.1. Importance of Nutrition
 - 6.6.2. Screening Scales in Nutrition
 - 6.6.2.1. Malnutrition Universal Screening Tool (MUST)
 - 6.6.2.2. Mini Nutritional Assessment (MNA)
 - 6.6.2.3. Nutritional Risk Screening (NRS-2002)
 - 6.6.3. Nutritional Assessment
 - 6.6.4. Malnutrition
 - 6.6.5. Dehydration
 - 6.6.6. Nutritional Supplements
 - 6.6.7. Alternatives to Oral Feeding
 - 6.6.7.1. Enteral Nutrition
 - 6.6.7.1.1. Naso/Oroenteral Tube Nutrition
 - 6.6.7.1.2. Nutrition by Gastrostomy
 - 6.6.7.1.3. Comparing Types of Enteral Nutrition
 - 6.6.7.2. Parenteral Nutrition
- 6.7. Dysphagia Rehabilitation Using Compensatory Techniques
 - 6.7.1. Rehabilitation Treatment Objectives
 - 6.7.2. Postural Techniques
 - 6.7.3. Consistency Modifications
 - 6.7.4. Modifying Intake Volume and Speed
 - 6.7.5. Modifying Food at the Perceptual Level
 - 6.7.6. New Textures
 - 6.7.7. Adapting Utensils for Intake
 - 6.7.8. Guidelines for Patients and Family
 - 6.7.8.1. Adaptation to Surroundings
 - 6.7.8.2. Drug Administration
 - 6.7.8.3. Oral Hygiene
- 6.8. Dysphagia Rehabilitation Using Rehabilitation Techniques I
 - 6.8.1. Inclusion/Exclusion Criteria in Treatments Using Rehabilitation Techniques
 - 6.8.2. Swallowing Maneuvers
 - 6.8.3. Techniques to Exercise Swallowing Musculature
 - 6.8.3.1. Orofacial Myofunctional Therapy
 - 6.8.3.1.1. Soft Tissues Manipulation
 - 6.8.3.1.2. Sensory Enhancement Techniques
 - 6.8.3.1.3. Specific Exercises
 - 6.8.3.1.3.1. Tongue
 - 6.8.3.1.3.2. Lips/Buccinator Muscles
 - 6.8.3.1.3.3. Masticatory Muscles
 - 6.8.3.1.3.4. Palatal Veil
 - 6.8.3.2. Techniques to Stimulate Swallowing Reflex
 - 6.8.3.3. Bolus Propulsion Exercises
 - 6.8.3.4. Laryngeal Elevation (Hyoid Excursion) Exercises
 - 6.8.3.5. Exercises to Improve Glottic Closure
- 6.9. Dysphagia Rehabilitation Using Rehabilitation Techniques II
 - 6.9.1. Dysphagia Treatment based on Symptomatology
 - 6.9.2. Breathing Treatment
 - 6.9.3. Positioning
 - 6.9.4. Diet Implementation
 - 6.9.5. Use of Botulinum Toxin
 - 6.9.6. Neuromuscular Bandaging
 - 6.9.6.1. Rigid Bandages
 - 6.9.6.2. Flexible Bandages
 - 6.9.7. Electrotherapy in Swallowing
 - 6.9.8. New Technologies
- 6.10. Useful Content for Speech Therapists Working in Dysphagia
 - 6.10.1. CPR in Diet
 - 6.10.2. Diet Rheology
 - 6.10.3. Additional Information

Module 7. Dentistry and Orofacial Disorder

- 7.1. Dentition
 - 7.1.1. Introduction
 - 7.1.2. Tooth Growth and Development
 - 7.1.3. Classification
 - 7.1.4. Primary Dentition
 - 7.1.5. Mixed Dentition
 - 7.1.6. Permanent Dentition
 - 7.1.7. Tooth Formation and Development
- 7.2. Typical and Pathological Patterns
 - 7.2.1. Introduction
 - 7.2.2. Equipment
 - 7.2.3. Dento-Labial Deformities
 - 7.2.4. Eruptive Abnormalities
 - 7.2.5. Pathologic Patterns and Congenital Disorders
 - 7.2.6. Clinical Assessment and Examination
 - 7.2.7. Clinical Intervention
 - 7.2.8. Multidisciplinary Perspective
- 7.3. Clinical Examination and Radiographic Analysis
 - 7.3.1. Introduction
 - 7.3.2. Overview
 - 7.3.3. Teleradiography
 - 7.3.4. Ricketts' Circular Analysis
 - 7.3.5. Steiner's Cephalometric Analysis
 - 7.3.6. Bone Radiography
 - 7.3.7. Bibliography
- 7.4. Assessment
 - 7.4.1. Introduction
 - 7.4.2. Orofacial System Functions
 - 7.4.3. Aesthetic/Biofacial Analysis
 - 7.4.4. Anatomical-Functional Assessment
 - 7.4.5. Assessment of Orofacial System Functions
 - 7.4.6. Atypical Swallowing
 - 7.4.7. Myofunctional Assessment Protocol
 - 7.4.8. Bibliography
- 7.5. Function and Form
 - 7.5.1. Introduction
 - 7.5.2. Breathing and Swallowing Disorders
 - 7.5.3. Breathing and Swallowing
 - 7.5.4. Bruxism
 - 7.5.5. Joint and Jaw Examination II
 - 7.5.6. Joint and Jaw Examination II
 - 7.5.7. Mandibular Dynamics Study
 - 7.5.8. Bibliography
- 7.6. Speech Therapy Intervention
 - 7.6.1. Introduction
 - 7.6.2. Mouth Breathing
 - 7.6.3. Oral Dysfunction
 - 7.6.4. Speech Therapy Intervention in Oral Breathing
 - 7.6.5. Atypical Swallowing
 - 7.6.6. Speech Therapy Intervention in Atypical Swallowing
 - 7.6.7. Temporomandibular Joint (TMJ)
 - 7.6.8. Speech Therapy Intervention in TMJ
 - 7.6.9. Bibliography
- 7.7. Occlusion and Malocclusion
 - 7.7.1. Introduction
 - 7.7.2. Temporal Occlusion
 - 7.7.3. Temporal Occlusion Development
 - 7.7.4. Permanent Occlusion
 - 7.7.5. Permanent Occlusion Development
 - 7.7.6. Physiological and Non-Physiological Occlusion
 - 7.7.7. Static and Dynamic Occlusion
 - 7.7.8. Multidisciplinary Treatment
 - 7.7.9. Bibliography
- 7.8. Main Occlusion Classification
 - 7.8.1. Introduction
 - 7.8.2. Characteristics
 - 7.8.3. Anteroposterior Classification
 - 7.8.4. Transversal Syndrome I
 - 7.8.5. Transversal Syndrome II
 - 7.8.6. Vertical Syndromes
 - 7.8.7. Etiopathogenesis of Malocclusions
 - 7.8.8. Bibliography

- 7.9. Dentistry and Speech Therapy
 - 7.9.1. Introduction
 - 7.9.2. Multidisciplinary Work
 - 7.9.3. Extraoral Examination
 - 7.9.4. Intraoral Examination
 - 7.9.5. Functional Examination
 - 7.9.6. Dentistry and Oral Function
 - 7.9.7. Bibliography
 - 7.9.8. Speech Therapy Intervention in Orofacial Disorder
- 7.10. Case Studies
 - 7.10.1. Introduction
 - 7.10.2. Practical Case 1
 - 7.10.3. Practical Case 2
 - 7.10.4. Practical Case 3
 - 7.10.5. Practical Case 4
 - 7.10.6. Bibliography

Module 8. Feeding in ASD (Autism Spectrum Disorder)

- 8.1. Definition and History of ASD
 - 8.1.1. Breathing
 - 8.1.2. Classification and Breathing Patterns
 - 8.1.3. Airway Pathway Analysis
 - 8.1.4. Mastication
 - 8.1.5. Swallowing
 - 8.1.6. Stomatognathic System Structures Involved in Swallowing
 - 8.1.7. Neurological Structures Involved in Swallowing
 - 8.1.8. Neurological Control of Swallowing
 - 8.1.9. Neurogenic Dysphagia
 - 8.1.10. Breathing and Swallowing Relationship. Importance of Breathing-Swallowing Coordination during the Swallowing Process

- 8.2. Early Detection and Diagnosis of Autism Spectrum Disorder
 - 8.2.1. Objectives of the Topic
 - 8.2.2. Introduction
 - 8.2.3. Characteristics of ASD
 - 8.2.4. Communication and Social Interaction
 - 8.2.5. Communication Skills
 - 8.2.6. Social Interaction Skills
 - 8.2.7. Behavioral and Cognitive Flexibility
 - 8.2.8. Sensory Processing
 - 8.2.9. Scales and Instruments
 - 8.2.10. Conclusions
 - 8.2.11. Bibliography
- 8.3. General Methodological Principles in the Treatment of People with ASD
 - 8.3.1. Introduction
 - 8.3.2. Basic Methodological Principles
 - 8.3.3. Intervention Techniques
 - 8.3.4. Support for Intervention in People with ASD
 - 8.3.5. TEACCH Work System
- 8.4. General Guidelines for Feeding Intervention
 - 8.4.1. General Intervention Guidelines
 - 8.4.2. Order of Presentation of Foods
 - 8.4.3. Recommendations
 - 8.4.4. Conclusions
- 8.5. Feeding Problems in Children with ASD. Proposed Intervention in a Unique Case. Part 1
 - 8.5.1. Introduction to Feeding Problems in Children with Autism
 - 8.5.2. Clinical Case and Qualitative Assessment
 - 8.5.3. Example of Orofacial Structural and Functional Evaluation
 - 8.5.4. Speech Therapy Intervention Strategies

- 8.6. Feeding Problems in Children with ASD. Proposed Intervention in a Unique Case. Part 2
 - 8.6.1. Speech Therapy Intervention Program
 - 8.6.2. Enhance the Awareness and Control of Respiratory Functions
 - 8.6.3. Nasal Hygiene
 - 8.6.4. Encourage Nasal Breathing and Blowing
 - 8.6.5. Increase Olfactory Sensory Response
 - 8.6.6. Feeding Function
 - 8.6.7. Oral Sensitivity
 - 8.6.8. Oral Hygiene
 - 8.6.9. Oral Stimulation
 - 8.6.10. Oral Motor Skills
 - 8.6.11. Oral Stereognosis
 - 8.6.12. Inhibition of Gag Reflex
 - 8.6.13. Taste Stimulation
 - 8.6.14. Relaxation of Mastication Muscles
 - 8.6.15. Mastication Without Food
 - 8.6.16. Mastication with Food

Module 9. Feeding in Congenital Neurological Disorders

- 9.1. Feeding in Congenital Neurological Disorders. Part 1
 - 9.1.1. Cerebral Palsy and Oropharyngeal Dysphagia
 - 9.1.2. Main Feeding Problems Associated with Cerebral Palsy
 - 9.1.3. Neuromuscular Function Alterations
 - 9.1.4. Sensory Alterations
 - 9.1.5. Structural Alterations Involved in the Swallowing Process
 - 9.1.6. Postural Alterations
 - 9.1.7. Orofacial Motor Function Alterations
- 9.2. Feeding in Congenital Neurological Disorders. Part 2
 - 9.2.1. Structural Alterations of the Oral Cavity
 - 9.2.2. High Palate (Ojival Palate)
 - 9.2.3. Malocclusions
 - 9.2.4. Temporomandibular Joint Disorders (TMJ)
 - 9.2.5. Oral Health Alterations
 - 9.2.6. Respiratory Problems
 - 9.2.7. Absence of Cough Reflex or Ineffective Cough
 - 9.2.8. Respiratory Infections Associated with Aspiration
 - 9.2.9. Bibliography

- 9.3. Swallowing Safety and Efficacy Alterations. Main Signs Present in Individuals with Cerebral Palsy
 - 9.3.1. Efficacy Alterations
 - 9.3.2. Safety Alterations
 - 9.3.3. Evident Signs During Ingestion
 - 9.3.4. Non-Evident Signs During Ingestion
 - 9.3.5. Model for Action in Presence of Swallowing Alterations
- 9.4. Human Nutrition and Dietetics
 - 9.4.1. Symptoms of Malnutrition and Dehydration
 - 9.4.2. Consequences of Malnutrition and Dehydration
 - 9.4.3. Heat-Related Illnesses
 - 9.4.4. Malnutrition/Malnourishment Screening Scales
 - 9.4.5. Importance of the Nutritionist's Role
- 9.5. Feeding in Individuals with Cerebral Palsy and Related Disorders with High Support Needs and Dysphagia
 - 9.5.1. Importance of Interdisciplinary Work in Feeding Individuals with Cerebral Palsy and Dysphagia
 - 9.5.2. Types of Feeding in Individuals with Cerebral Palsy and Disabilities with High Support Needs
 - 9.5.3. Aspects to Consider During Adapted Oral Feeding
 - 9.5.4. Evolution Towards Texture and Consistency Adaptations in Food
 - 9.5.5. Texturized Foods
 - 9.5.6. Main Differences from Turmix Diets
 - 9.5.7. What Does the Implementation of Texturized Foods Imply?

04

Teaching Objectives

This Master's Degree provides educators with specialized competencies to address neurological and orofacial disorders that affect communication, speech, and swallowing. Graduates will acquire skills to design individualized intervention plans, apply evidence-based therapeutic techniques, and collaborate in multidisciplinary teams. Additionally, they will develop knowledge in neurophysiology, neuromuscular stimulation, and functional rehabilitation for clinical and educational contexts.





“

You will gain a solid understanding of neuroplasticity and neurophysiological foundations, applied to language recovery”



General Objectives

- ♦ Develop in-depth knowledge of the anatomical and functional bases of the central and peripheral nervous systems
- ♦ Study the anatomy and function of the organs involved in basic functions such as breathing, phonation, and swallowing
- ♦ Acquire knowledge in both Speech Therapy evaluation and intervention
- ♦ Deepen your understanding of rehabilitation techniques supported by clinical practice
- ♦ Develop intervention skills drawn from complementary disciplines such as neuropsychology, physiotherapy, and psychology



You will learn valuable lessons through real cases in simulated learning environments”





Specific Objectives

Module 1. Introduction to Neurorehabilitation I: Basic Fundamentals of Neuroanatomy

- ♦ Study the foundation of the nervous system to understand brain function
- ♦ Outline the general phases of the embryological development of the nervous system

Module 2. Introduction to Neurorehabilitation II: Relationship with Speech Therapy Treatment

- ♦ Understand the different diseases of brain damage as the basis for neuropsychological exploration
- ♦ Learn to conceptualize the functions of attention, memory, and perception

Module 3. Anatomy and Physiology of the Voice. Vocal Chord Status

- ♦ Understand the specific anatomical and functional aspects of the phonatory system as the basis for vocal pathology rehabilitation
- ♦ Learn the most important characteristics of the voice and how to listen to different types of voices to identify altered aspects and guide clinical practice

Module 4. Vocal Rehabilitation

- ♦ Deepen knowledge of the most current diagnostic and treatment techniques
- ♦ Analyze various possible vocal pathologies and ensure scientific rigor in treatments

Module 5. Orofacial/Myofunctional Therapy (OMT) and Early Intervention

- ♦ Understand the innate and acquired buccofacial behavior of infants
- ♦ Recognize a correct motor pattern in swallowing, breathing, and sucking

Module 6. Evaluation and Intervention in Neurologic Dysphagia in Adults

- ♦ Provide anatomical and physiological knowledge of structures involved in normal and pathological swallowing
- ♦ Understand assessment scales, exploration methods, and instrumental evaluation techniques

Module 7. Dentistry and Orofacial Disorder

- ♦ Understand the function of structures involved in breathing, mastication, and swallowing
- ♦ Learn to assess the functions of the orofacial system and their interrelationship

Module 8. Feeding in ASD (Autism Spectrum Disorder)

- ♦ Study potential strategies for addressing feeding difficulties
- ♦ Learn to develop a work program that enhances feeding function

Module 9. Feeding in Congenital Neurological Disorder

- ♦ Develop competencies to assess orofacial alterations in congenital neurological disorders
- ♦ Improve the quality of life of neurological patients by enhancing their eating habits

05

Career Opportunities

This program from TECH offers a unique opportunity for educators who wish to specialize in Orofacial and Speech Therapy Neurorehabilitation, acquiring advanced competencies in the evaluation and intervention of neuromotor dysfunctions and communication disorders. Thanks to this cutting-edge knowledge, graduates will expand their career opportunities in various educational settings. As such, students will develop a comprehensive understanding of speech therapy intervention in educational contexts with complex needs, applying therapeutic strategies adapted to each case.



“

You will be able to assess and intervene in orofacial and neurological disorders that affect communication and oral function”

Graduate Profile

Graduates of this Master's Degree from TECH will be highly trained professionals capable of designing, implementing, and evaluating intervention strategies in Orofacial and Speech Therapy Neurorehabilitation. They will have advanced skills in the rehabilitation of patients with speech, swallowing, and orofacial motricity disorders, applying an interdisciplinary approach. Additionally, they will be prepared to collaborate with medical teams to optimize treatments and integrate new technologies into clinical practice.

You will apply advanced techniques in Speech Therapy and Orofacial Neurorehabilitation to improve the quality of life for patients with neuromotor disorders.

- ♦ **Intervention in Dysphagia and Swallowing Disorders:** Applying strategies for re-education of orofacial muscles and optimizing the swallowing process
- ♦ **Neurorehabilitation in Neurological Pathologies:** Mastering techniques for the recovery of language and communication in patients with acquired brain damage
- ♦ **Functional Evaluation and Diagnosis:** Ability to apply assessment tools in orofacial and speech disorders, optimizing therapeutic plans
- ♦ **Use of New Technologies in Speech Therapy:** Implementing digital tools and advanced methods in language and swallowing rehabilitation





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

- 1. Specialist in Speech Therapy Neurorehabilitation:** A professional trained to intervene in speech and swallowing disorders in patients with neurological damage.
- 2. Coordinator of Myofunctional Therapy Programs:** Responsible for designing and implementing programs for the re-education of oral and muscular functions.
- 3. Speech Therapist Specialized in Dysphagia:** A key professional in the rehabilitation of patients with swallowing disorders in hospitals and rehabilitation centers.
- 4. Therapist in Sensory and Cognitive Stimulation:** Applying innovative techniques to enhance neuromuscular recovery and improve communication.
- 5. Supervisor of Orofacial Rehabilitation Projects:** Leader in the development of new methodologies for the intervention in orofacial disorders.
- 6. Specialist in Language and Communication Neuroscience:** Researching and applying strategies based on neuroplasticity for speech recovery.
- 7. Speech Therapist in Early Intervention Units:** A professional dedicated to the early detection and intervention of speech and swallowing disorders in children.



You will handle standardized assessment tools to accurately identify language, voice, and swallowing disorders”

06

Study Methodology

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

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



“

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

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

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

“

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



The most comprehensive study plans at the international level

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

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

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

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

Case Studies and Case Method

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

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

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



Relearning Methodology

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

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

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

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



A 100% online Virtual Campus with the best teaching resources

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

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

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

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



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

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

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

The university methodology top-rated by its students

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

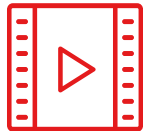
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

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

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



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



Study Material

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

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



Practicing Skills and Abilities

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



Interactive Summaries

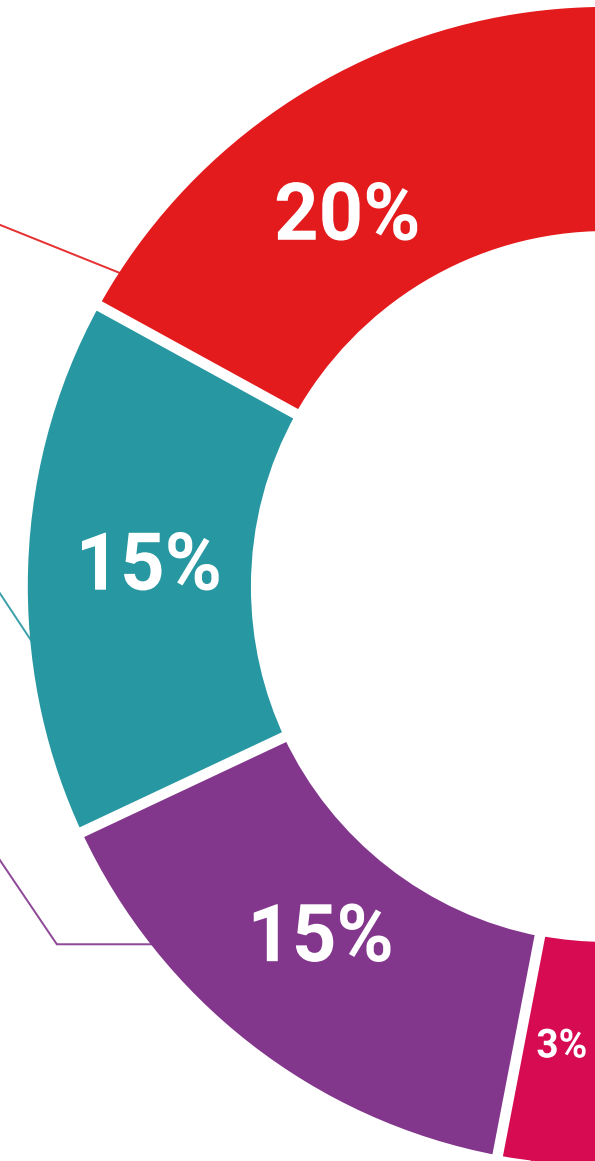
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

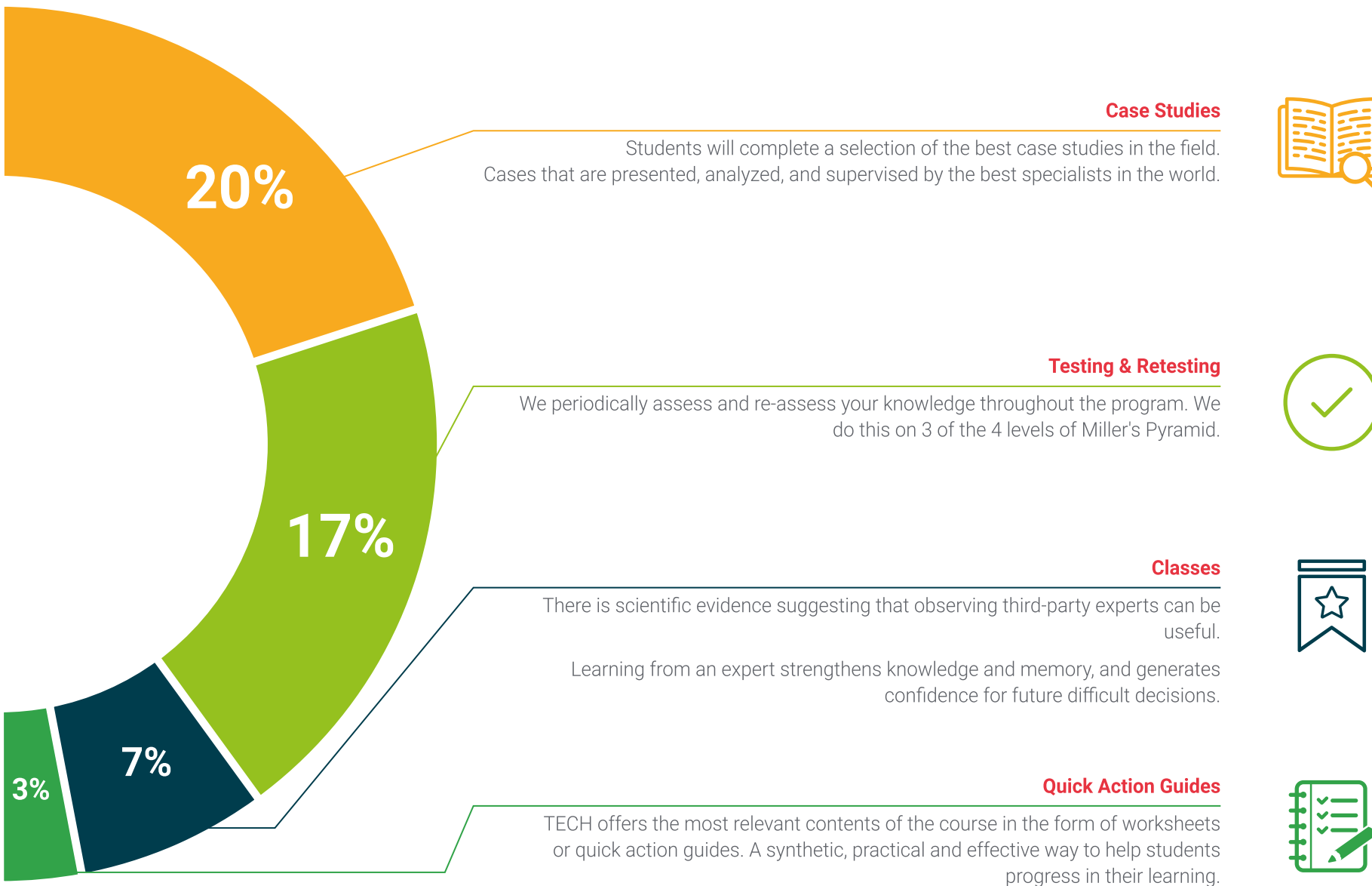
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





07

Teaching Staff

For an effective approach to voice treatments, interprofessional collaboration is key. TECH has designed this program with a multidisciplinary faculty that provides educators with a comprehensive view of speech and orofacial disorders. Thanks to this academic structure, specialists will have access to updated knowledge and advanced strategies taught by leading experts in the field. This training opportunity allows you to learn from highly regarded professionals, facilitating the application of innovative techniques in the classroom. As such, educators will be able to optimize their interventions and ensure more inclusive and effective teaching in both educational and clinical settings.





“

You will learn from top professionals about the latest advancements in approaches to Speech Therapy and Orofacial Neurorehabilitation”

Management



Dr. Borrás Sanchís, Salvador

- ♦ Psychologist, Teacher and Speech Therapist
- ♦ Educational Counselor in the Valencian Government, Department of Education
- ♦ Specialist in Abile Educativa
- ♦ Partner at Avance SL
- ♦ Pedagogical Advisor and External Collaborator at Aula Salud
- ♦ Pedagogical Director at iteNlearning
- ♦ Author of *Guide for the Reeducation of Atypical Swallowing and Associated Disorders*
- ♦ Pedagogical Director at the Instituto DEIAP (Institute for Comprehensive Development and Psychoeducational Care)
- ♦ Bachelor's Degree in Psychology
- ♦ Hearing and Speech Teacher
- ♦ Certified in Speech Therapy



Ms. Santacruz García, Estefanía

- ♦ Social integrator and clinical speech therapist at Uner La Clinic
- ♦ Teacher at CEFIRE
- ♦ Specialist in Orofacial and Myofunctional Therapy

Faculty

Ms. Álvarez Valdés, Paula del Carmen

- ♦ Specialist in Diagnosis and Treatment of Early Childhood Care
- ♦ Clinical Speech Therapist Specialist in Myofunctional Therapy
- ♦ Expert in Psychodiagnosis and Early Intervention Treatment
- ♦ Direct collaboration in Dental Office
- ♦ Degree in Speech Therapy
- ♦ Master's Degree in Special Education and in Foreign Languages from the Pontifical University of Salamanca
- ♦ ISEP Master's Degree in Myofunctional Therapy

Ms. Jiménez Jiménez, Ana

- ♦ Clinical Neuropsychologist and Social Worker
- ♦ Clinical Neuropsychologist at Integra Cerebral Damage
- ♦ Neuropsychologist at UNER Clinic
- ♦ Educator on the Social Action Team Murcia in Cáritas Española
- ♦ Degree in Social Work at the University of Murcia
- ♦ Degree in Psychology from the National University of Distance Education (UNED)
- ♦ Master's Degree in Clinical Neuropsychology from the European University Miguel de Cervantes
- ♦ Master's Degree in Management and Administration from the National University of Distance Education (UNED)

Dr. Carrasco de Larriva, Concha

- ♦ Cognitive Rehabilitation and Clinical Neuropsychology Expert
- ♦ Psychologist at PEROCA
- ♦ Clinical Neuropsychologist accredited by the General Council of Psychology in Spain
- ♦ Attending Professor of the Department of Psychology at the Catholic University San Antonio of Murcia
- ♦ Master's Degree in Clinical Neuropsychology from the Spanish Association of Clinical Cognitive Behavioral Psychology
- ♦ Expert in Child and Cognitive Rehabilitation by the Francisco de Vitoria University
- ♦ Postgraduate degree in Cognitive Rehabilitation from ISEP
- ♦ Bachelor's Degree in Psychology from the University of Granada
- ♦ Qualified for the assessment of Autism with the Autism Diagnostic Observation Scale ADOS

Ms. Gallego Díaz, Mireia

- ♦ Hospital Speech Therapist
- ♦ Occupational Therapist
- ♦ Speech Therapist Expert in Swallowing Disorders

Ms. García Gómez, Andrea MARÍA

- ♦ Speech therapist specialized in Acquired Brain Injury Neurorehabilitation
- ♦ Speech Therapist at UNER Clinic
- ♦ Speech Therapist at Integra Brain Injury
- ♦ Speech Therapist at Ineuro
- ♦ Degree in Speech Therapy
- ♦ Master's Degree in Speech Therapy Neurorehabilitation in Acquired Brain Injury

Ms. López Samper, Belén

- ♦ General Health Psychologist and Clinical Neuropsychologist
- ♦ Psychologist at the Alcaraz Institute
- ♦ Psychologist at the IDEAT Centre
- ♦ Neuropsychologist at the UNER Clinic-Comprehensive Brain Damage Assessment and Rehabilitation
- ♦ Specialized in Child and Adult Neurorehabilitation at the Integral Center for Brain Injury
- ♦ Master's Degree in Special Educational Needs and Early Care, Developmental and Child Psychology from the International University of Valencia
- ♦ Master's Degree in Clinical Neuropsychology by the Spanish Association of Clinical Cognitive Behavioral Psychology
- ♦ Master's Degree in General Health Psychology from the University of Valencia
- ♦ Degree in Psychology from the Miguel Hernández University of Elche

Ms. Martín Bielsa, Laura

- ♦ Director of Multidisciplinary Center Dime Más
- ♦ CFP Estill Voice Training
- ♦ Bachelor's Degree in Speech Therapy
- ♦ Diploma in Teaching
- ♦ Dean of the Professional Association of Speech Therapists of Aragon

Ms. Muñoz Boje, Rocío

- ♦ Occupational Therapist Specialist in Neurorehabilitation in the Uner Clinic
- ♦ Degree in Occupational Therapy

Ms. Navarro Marhuenda, Laura

- ♦ Neuropsychologist at the Kinemas Center
- ♦ Specialist in Child and Adult Neurorehabilitation in Integral Center of Brain Injury
- ♦ Master's Degree in Speech Neurorehabilitation and Vital Function Analysis
- ♦ Neuropsychologist at INEURO
- ♦ Neuropsychologist at Uner La Clinic
- ♦ Bachelor's Degree in Psychology from the Miguel Hernández University of Elche
- ♦ Master's Degree in Health Psychology from the Miguel Hernández University of Elche
- ♦ Master's Degree in Clinical Neuropsychology from the European University Miguel de Cervantes
- ♦ Master's Degree in Pediatric Neurology and Neurodevelopment by CEU Cardena Herrera University

Ms. Santacruz García, Raquel

- ♦ Specialist in Pedagogy and Nutrition
- ♦ Dietician for the Hispanic Ballet Company
- ♦ Dancer at the Andalusian Dance Center
- ♦ Graduate in Human Nutrition and Dietetics from the Catholic University San Antonio
- ♦ Specialist in Dance Pedagogy by the Theatre Institute of Barcelona
- ♦ Intermediate Degree in Classical Dance at the Conservatory of Murcia

Mr. Santacruz García, José Luis

- ♦ Psychologist specializing in Congenital and Acquired Brain Injury

Ms. Sanz Pérez, Nekane

- ♦ Clinical Speech Therapist specialized in Acquired Brain Injury
- ♦ Teacher in Iberocardio for Aspace (Main Confederation and Entity for Cerebral Palsy Care in Spain)

Ms. Selva Cabañero, Pilar

- ♦ Obstetric-Gynecological Nurse Specialist (Midwife)
- ♦ Obstetric-Gynecological Nursing Teaching Unit of the University of Murcia. Santa Lucía University General Hospital
- ♦ Publication, Ankyloglossia and the Success of Breastfeeding, ISBN13: 978- 84-695- 5302- 2. 2012



A unique, essential and decisive learning experience to boost your professional development"

08

Certificate

The Master's Degree in Speech Therapy and Orofacial Neurorehabilitation guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Master's Degree issued by TECH Global University.



“

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

This private qualification will allow you to obtain a diploma for the **Master's Degree in Speech Therapy and Orofacial Neurorehabilitation** 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.



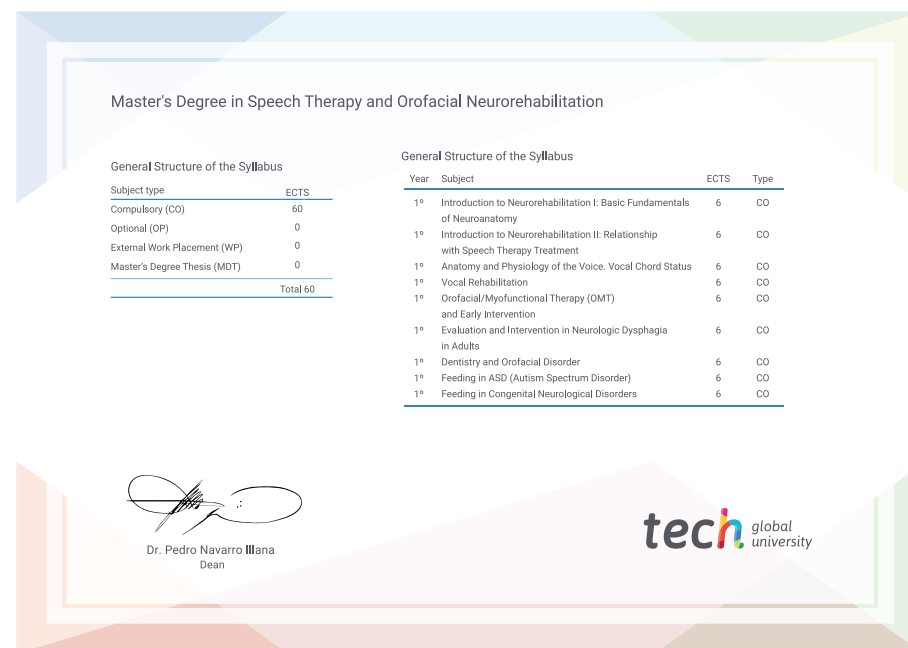
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Speech Therapy and Orofacial Neurorehabilitation**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**





Master's Degree
Speech Therapy
and Orofacial
Neurorehabilitation

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

Master's Degree

Speech Therapy and Orofacial
Neurorehabilitation