

Hybrid Master's Degree

Speech Neurorehabilitation and Vital
Function Analysis. Orofacial and
Myofunctional Therapy



Hybrid Master's Degree

Speech Neurorehabilitation and
Vital Function Analysis. Orofacial and
Myofunctional Therapy

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

Credits: 60 + 4 ECTS

Website: www.techtitute.com/us/medicine/hybrid-master-degree/hybrid-master-degree-speech-neurorehabilitation-vital-function-analysis-orofacial-myofunctional-therapy

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01

Introduction

Neurosciences are advancing and with them complex Neurorehabilitation tools and protocols are continuously appearing. In particular, research in this field has offered much more innovative protocols in Speech Therapy, Vital Functions Analysis and Orofacial and Myofunctional Therapy. Keeping up to date on all these aspects is of vital importance for healthcare professionals. For this reason, this program offers a first level update, consisting of two distinct stages. In the first phase, you will develop a 100% online learning from a platform with numerous interactive features. This will be followed by a first-class practical and on-site internship in a prestigious hospital center, equipped with the latest resources and an excellent team of experts.



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With TECH, you will master the latest criteria related to Speech Therapy Neurorehabilitation and Vital Functions Analysis through an educational modality that integrates with excellence the theoretical and practical aspects of this discipline"

In very few years, science and technology have advanced considerably, leading to the emergence of effective protocols for Speech Neurorehabilitation and Vital Function Analysis. Likewise, orofacial and myofunctional therapies have been expanded for the care of patients with pathologies such as Aphasia and Hypophonia generated by Parkinson's disease. However, staying up to date on all these topics is a major challenge for specialists. This is largely due to the fact that the educational programs on the market are not sufficiently comprehensive or up to date on all the clinical and technological aspects of this discipline.

TECH wants to distinguish itself in this educational panorama with an unusual proposal that brings together, in a pioneering way, theoretical and practical learning. Therefore, this Hybrid Master's Degree consists, first of all, of an online phase of 1800 hours. During this pedagogical process, the specialist will assimilate new knowledge with the support of multimedia resources such as infographics and videos. Likewise, they will be assisted by innovative methodologies such as apprenticeship to acquire these new competencies in a fast and flexible way.

On the other hand, at the end of this theoretical stage, the professionals will have in their hands the realization of a clinical practice in state-of-the-art hospital centers. This intensive, on-site internship will be developed for 3 weeks in a direct and immersive manner. The care of real patients is guaranteed during this learning period. In addition, they will be guided by prestigious experts and a designated tutor will closely monitor their progress. Upon completion of the entire program, the specialists will be ready to apply the latest techniques in their daily professional practice.

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

- ♦ Development of more than 100 clinical cases presented by health professionals with a wide experience in Speech-Language Neurorehabilitation and Vital Functions Analysis
- ♦ 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
- ♦ Comprehensive systematized action plans for the main pathologies
- ♦ Presentation of practical workshops on diagnostic and therapeutic techniques
Interactive learning system based on algorithms for decision making on clinical situations
- ♦ Practical clinical guides on approaching different pathologies
- ♦ All of this will be complemented by 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
- ♦ Furthermore, you will be able to carry out a clinical internship in one of the best hospital centers



Through this Hybrid Master's Degree you will be able to apply specific relaxation techniques for the tone and voluntary motor control of patients with Facial Paralysis"



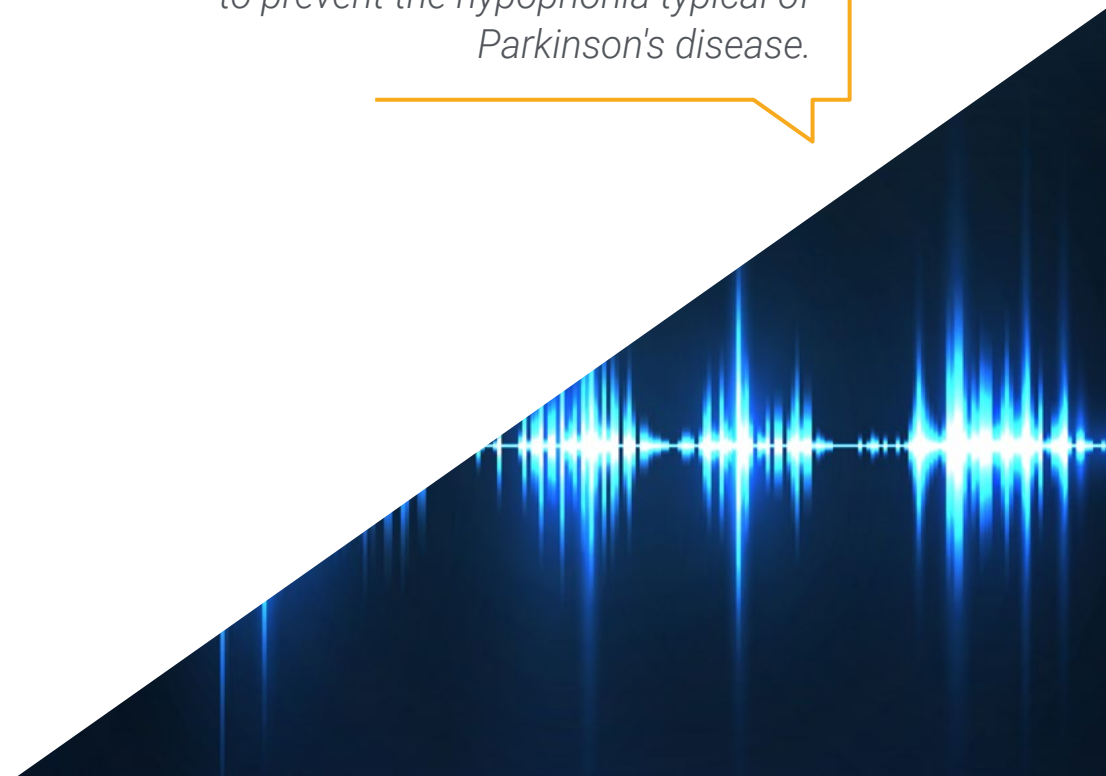
You will apply the most innovative procedures of Speech Neurorehabilitation and Vital Functions Analysis during the 3 weeks of intensive practical internship offered by TECH"

In this Hybrid Master's Degree, with a vocational nature and blended learning modality, the program is aimed at updating healthcare professionals who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in an educational way to integrate theoretical knowledge into practice, and the theoretical-practical elements will facilitate knowledge update and decision-making in patient management.

Thanks to its multimedia content developed with the latest educational technology, they will allow the health professional to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

With this program you will be up to date on the proper breathing, swallowing, chewing and phonation patterns, as well as the proper positioning of the lips and tongue, according to specific alterations.

From this program, you will update your knowledge on how to train patients to prevent the hypophonia typical of Parkinson's disease.



02

Why Study this Hybrid Master's Degree?

This program is substantially different from others of its kind in the market because it unites theoretical learning with the development of practical skills in an exceptional way. In this way, students will have the opportunity to assimilate new competencies in a 100% online and interactive learning platform, until completing 1,800 teaching hours. To consolidate all these skills, they will have a first level clinical practice, in prestigious hospitals, applying up-to-date care to real patients.



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In the educational market, TECH distinguishes itself in an exceptional way with a program that unifies the most recent theoretical and practical knowledge in relation to Speech Neurorehabilitation and Vital Functions Analysis"

1. Updating from the latest technology available

The development of innovative neurostimulation and neurofeedback devices has made possible the emergence of increasingly innovative care protocols. Therefore, in this program, the specialists will have the opportunity to assimilate all of them and integrate them in a professional manner in their daily professional practice.

2. Gaining in-depth knowledge from the experience of top specialists

During the two learning phases that make up this Hybrid Master's Degree, the healthcare professional will have access to the best experts. First of all, they will have access to an excellent faculty that will clarify doubts and concepts of interest in the theoretical stage. Likewise, during the clinical internship, they will work directly with distinguished experts in the most renowned and competitive hospital centers.

3. Entering first-class clinical environments

For the practical internship of this program, TECH has made a careful selection of hospital facilities. In this way, the specialists will have access to first class environments, where they will be able to handle the latest technologies. At the same time, they will be guided by prestigious experts who will help them to be up to date in the application of the most current procedures for Speech Neurorehabilitation.



4. Combining the best theory with state-of-the-art practice

Throughout 3 weeks of on-site internship in a prestigious hospital center, the health professional will put into practice everything learned in the theoretical phase of this Hybrid Master's Degree. As a result, from the very first moment, they will deal with real cases with different speech disorders and orofacial pathologies. At the same time, they will implement techniques and tools to manage all these pathologies from a diagnostic and therapeutic point of view.

5. Expanding the boundaries of knowledge

TECH, the world's largest online university, aspires that all its students have a first class education, according to the most up-to-date international standards. For this reason, the professional who is studying this Hybrid Master's Degree, will have the opportunity to choose different medical centers for their practical internship, which will be located in different continents.



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

03 Objectives

This Hybrid Master's Degree has been designed by TECH to prepare the professional of Speech Neurorehabilitation and Vital Functions Analysis in the application of the most innovative procedures within this scientific field. The physician will acquire these skills in two distinct educational stages. The first one will facilitate the assimilation of theoretical contents from a 100% online and interactive learning platform. Afterwards, they will be able to attend a clinical internship of 120 educational hours in which they will be able to put into practice all the subjects previously covered in the healthcare of real cases.





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With this program, you will learn to perform state-of-the-art muscular exercises in the phonoarticulatory organs to adjust the tone and mobility of the voice"

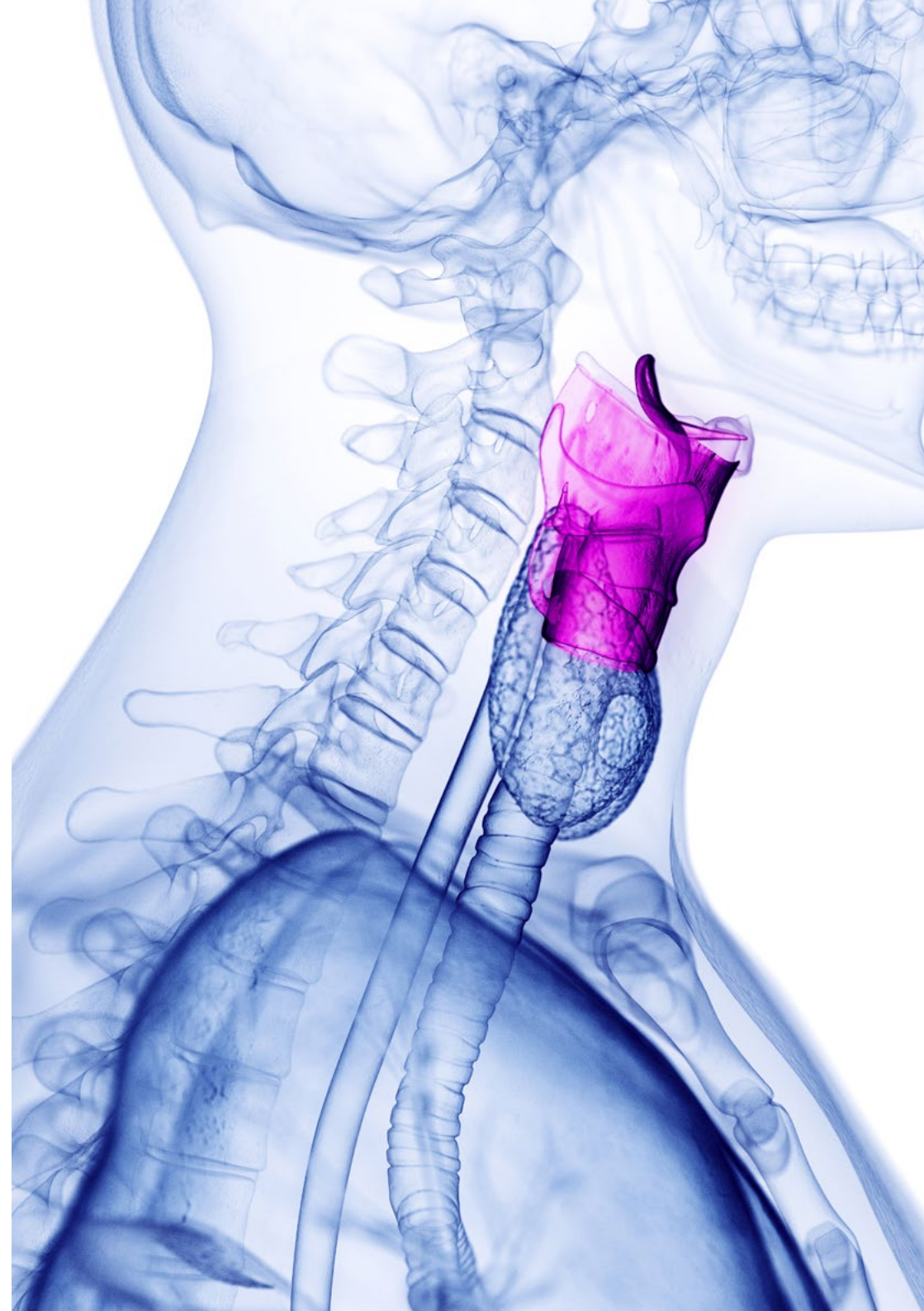


General Objective

- Through this Hybrid Master's Degree, the specialists will get an up-to-date education on the current principles of speech therapy assessment. Likewise, they will delve into the rehabilitation techniques supported by the most recent clinical practice, and the most recent diagnostic procedures for neurofunctional procedures. In particular, you will examine all disorders involving breathing, phonation and swallowing

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You will expand your health practice with the latest advances in Orofacial and Myofunctional Therapy that have been collected in the educational syllabus of this comprehensive Hybrid Master's Degree"





Specific Objectives

Module 1. Introduction to Neurorehabilitation I: Fundamentals of Neuroanatomy

- Know how the brain has been studied throughout history since antiquity
- Study the basis of the nervous system in order to understand how the brain works
- Detail the stages of embryological development of the nervous system in general terms
- Classify the different structures that form the central nervous system
- Study the structural and functional organization of the cerebral cortex
- Identify the general characteristics that make up the ascending and descending pathways of the spinal cord
- Recognize the differences between child and adult populations in clinical practice
- Study the different functions performed by the autonomic nervous system
- Know the characteristics that constitute motor control

Module 2. Introduction to Neurorehabilitation II: Relation with Speech Therapy

- Know the different brain damage diseases as a basis for neuropsychological exploration
- Know the basic cognitive functions
- Know how to conceptualize the functions of attention, memory and perception
- Know classifications, processes and systems
- Acquire basic knowledge of the assessment tests used
- Know the main alterations of the functions studied here
- Acquire an approach to the knowledge of executive functions and language

- Know what neuropsychological rehabilitation consists of and how to approach each cognitive function
- Know different behavior modification techniques (BMT)
- Develop some basic notions of how to apply BMT
- Acquire tools to act in the face of behavioral disorders
- Know how to apply BMT to speech therapy for improved results
- Know the clinical implication of occupational therapy in speech therapy rehabilitation
- Know the role of families during the rehabilitation process

Module 3. Anatomy and Physiology of the Voice

- Learn how to implement a correct and thorough assessment of vocal function in daily clinical practice
- Learn the specific anatomical and functional aspects of the phonatory system as a basis for the rehabilitation of voice disorders and for voice work with voice professionals
- Gain knowledge about the most important features of the voice and learn to listen to different types of voices in order to know which aspects are altered to guide clinical practice

Module 4. Vocal Rehabilitation

- ♦ Gain in-depth knowledge of the most current diagnostic and treatment techniques
- ♦ Analyze the different possible voice disorders and achieve scientific rigor in treatments
- ♦ Solve real practical cases with current therapeutic approaches based on scientific evidence
- ♦ Delve into the knowledge and analysis of the results obtained in objective voice assessments
- ♦ Learn about different approaches to the treatment of vocal pathologies
- ♦ Raise awareness of the need for vocal care
- ♦ View the voice as a global ability of the person and not as an exclusive act of the phonatory system

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

- ♦ Understand oral-facial behavior in children, both innate and acquired
- ♦ Recognize correct motor patterns in swallowing, breathing and sucking
- ♦ Detect functional alteration in diet early
- ♦ Understand the importance of oro-facial growth and vegetative functions development at the pediatric level
- ♦ Detect the signs of proper posture and apply them in different positions for breastfeeding

- ♦ Learn how to use alternative techniques in infant diets
- ♦ Learn to manage the different intervention strategies at the pediatric orofacial level in children with swallowing disorders
- ♦ Know and develop action plans during diet that can be helpful in first instance with a high chance of success
- ♦ Create diet programs adapted and individualized to each case in a preventive, re-educative and rehabilitative way

Module 6. Assessment and Intervention in Dysphagia of Neurological Origin in Adults

- ♦ Learn the anatomy and physiology of swallowing
- ♦ Provide anatomical and physiological knowledge of the structures involved in normal and pathological swallowing
- ♦ Learn the functional basis of dysphagia to classify it and know the pathologies associated with this disorder
- ♦ Become familiar with assessment scales, exploration and instrumental techniques
- ♦ Develop strategies to assess dysphagia before, during and after speech therapy intervention

- ♦ Learn how to assess the nutritional status of patients with dysphagia and the consequences of poor hydration and malnutrition
- ♦ Learn compensatory techniques as opposed to rehabilitative techniques
- ♦ Train in the comprehensive approach to dysphagia of neurological origin

Module 7. Dentistry and Orofacial Disorder

- ♦ Know the function of structures involved in breathing, chewing and swallowing
- ♦ Recognize dentomaxillary abnormalities
- ♦ Relate, complement and coordinate the work between dentistry and speech therapy
- ♦ Know orthodontic appliances
- ♦ Know and assess the functions of the orofacial system and their interrelationship
- ♦ Recognize when swallowing is dysfunctional
- ♦ Elaborate orofacial-myofunctional assessment protocols

Module 8. Dietary Alteration in Congenital Neurological Disorder: ICP

- ♦ Develop skills that favor the assessment of orofacial system alterations in congenital neurological disorders
- ♦ Favor the quality of life of neurological patients by improving their eating habits
- ♦ Broaden knowledge and consolidate the bases of infantile oral motor functioning
- ♦ Create programs for new habits and routines directly related to special needs student diets in order to improve their quality of life both at a personal and a social level
- ♦ Improve the intake quality in Parent-Child Interaction (PCI) during feeding to offer greater safety and efficiency in each intake

Module 9. Feeding Problems in Pervasive Developmental Disorders: Autism

- ♦ Know the concept of ASD and how sensory profiles influence diet
- ♦ Study potential strategies to deal with difficulties during feeding
- ♦ Learn how to develop work programs that enhances feeding function
- ♦ Provide support strategies in terms of understanding the context through visual, tactile and auditory support
- ♦ Generate practical tools to be implemented in natural contexts
- ♦ Promote the creation of individualized, flexible diet programs based on the interests of autistic children

04 Skills

Upon completion of this Hybrid Master's Degree, the healthcare professionals will be able to choose and handle the most modern diagnostic tools adjusted to the needs of each clinical case. At the same time, they will implement innovative treatments whose mastery will have been achieved thanks to the direct care of real cases. For this reason, this program will provide the physician with the most up-to-date skills in areas such as the management of Acquired Brain Injury (ABI) and general neurorehabilitation.



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With this program, you will delve into the applications of Neurostimulation and Neurofeedback techniques to self-regulate impaired brain functions"



General Skills

- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the field of study
- ♦ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities related to the application of their knowledge and judgments
- ♦ Know how to communicate conclusions – and knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ♦ Apply learning skills that will enable them to continue studying in a largely self-directed or autonomous manner





Specific Skills

- Use logopedic terminology in Orofacial Myofunctional Therapy (and Myofunctional) and related fields through the use of semiology as a basis for the understanding of all professional activity
- Detect, evaluate and explore the different orofacial system disorders at a structural level, considering basic and vital functions (breathing, swallowing, chewing and sucking) to re-educate or rehabilitate patients toward optimal neuromuscular function and an adequate muscular balance during growth and development
- Create work teams during myofunctional intervention, making joint decisions and assessments of the evolution of the case
- Become aware of the importance of making referrals to different health professionals such as pediatricians, stomatologists, speech therapists, otolaryngologists, neurologists, dentists, physiotherapists, occupational therapists, etc.
- Implement prevention programs for the different orofacial and myofunctional disorders and alterations
- Explore, assess, diagnose and make a prognosis of the evolution of orofacial alterations from a multidisciplinary approach
- Study, know and learn to use the different exploration techniques and instruments suitable for functional health, educational or clinical practice
- Put into practice the different types of orofacial intervention in an optimized way and adapted to each case according to etiology and motor development
- Develop attitudes capable of advising and guiding families and healthcare, clinical and educational agents involved in each case Use assertiveness and clarity to obtain optimal interaction
- Define the profession's limits and competences, and learn well-founded good practices
- Establish channels of communication, collaboration and coordination with healthcare and social agents
- Elaborate and write referral reports and speech therapy assessments at orofacial level, in a direct, clear and complete way
- Perform speech therapy intervention in all the required areas, applying principles of coherent intervention and with professional skill



Enroll in this program and learn the latest criteria to correct tongue and teeth positions through Orthodontic treatments against inadequate habits such as mouth breathing"

05 Course Management

For this Hybrid Master's Degree, TECH has brought together the best experts in the area of Speech Neurorehabilitation and Vital Functions Analysis. This excellent faculty has extensive experience in this medical discipline and, at the same time, they keep up to date with the most recent innovations within it. Based on this constant updating, the teachers have developed a very complete syllabus that will help the health professional to assimilate highly complex theoretical concepts, as well as to understand the functioning and scope of new therapeutic and diagnostic tools.



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The teachers of this program will facilitate the learning of this complex professional field through the best theoretical classes, audiovisual materials and interactive resources of great pedagogical value"

Management



Ms. Santacruz García, Estefanía

- Social Integrator and Clinical Speech Therapist at the Uner Clinic
- Teacher at CEFIRE
- Specialist in Orofacial and Myofunctional Therapy



Dr. Borrás Sanchís, Salvador

- ♦ Psychologist, Teacher and Speech Therapist
- ♦ Educational Counselor in the Valencian Government, Department of Education
- ♦ Specialist in Abile Educativa
- ♦ Partner Avance S.L.
- ♦ Pedagogical Advisor and External Collaborator of Aula Salud
- ♦ Pedagogical Director at iteNlearning
- ♦ Author of *Guide for the Re-Education of Atypical Swallowing and Associated Disorders*
- ♦ Pedagogical Director at the DEIAP Institute
- ♦ Bachelor's Degree in Psychology
- ♦ Hearing and Speech Teacher
- ♦ Certified in Speech Therapy

Professors

Ms. Álvarez Valdés, Paula del Carmen

- ♦ Specialist in Diagnosis and Treatment of Early Childhood Care
- ♦ Clinical Speech Therapist Specialist in Myofunctional Therapy
- ♦ Diploma in Psychodiagnosis and Early Care Treatment
- ♦ Direct collaboration in Dental Office
- ♦ Graduate 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

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
- ♦ Assistant 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 evaluation 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 Specialist 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. 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 General Health Psychology from the National University of Distance Education (UNED)

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)

Mr. Santacruz García, José Luis

- ♦ Psychologist specializing in Congenital and Acquired Brain Injury

Ms. López Samper, Belén

- ♦ General Health Psychologist and Clinical Neuropsychologist
- ♦ Psychologist. Alcaraz Institute
- ♦ Psychologist. IDEAT Center
- ♦ Neuropsychologist. UNER Clinic - Comprehensive Evaluation and Rehabilitation of Brain Injury
- ♦ Specialized in Child and Adult Neurorehabilitation at the Comprehensive Center for Brain Injury
- ♦ Master's Degree in Special Educational Needs and Early Care, Developmental and Child Psychology. International University of Valencia
- ♦ Master's Degree in Clinical Neuropsychology. Spanish Association of Clinical Cognitive Behavioral Psychology (AEPCCC)
- ♦ Master's Degree in General Health Psychology. International University of Valencia
- ♦ Bachelor's Degree in Psychology. 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. 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 Breastfeeding Success*, ISBN13: 978- 84- 695- 5302- 2. 2012

Ms. Muñoz Boje, Rocío

- ♦ Occupational Therapist Specialized in Neurorehabilitation at the Uner Clinic
- ♦ Occupational Therapist Specialized in Neurorehabilitation
- ♦ Degree in Occupational Therapy

Ms. Navarro Marhuenda, Laura

- ♦ Neuropsychologist at Kinemas Center
- ♦ Specialist in Child and Adult Neurorehabilitation at the Comprehensive Center for Brain Injury
- ♦ Master's Degree in Speech Neurorehabilitation and Vital Function Analysis
- ♦ Neuropsychologist at INEURO
- ♦ Neuropsychologist at Uner 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 from 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

06

Structure and Content

The syllabus of this program is made up of a large number of modules and topics of educational interest. It includes the basic fundamentals of the Speech Neurorehabilitation, Vital Functions Analysis and Orofacial and Myofunctional Therapies. It also refers to the main developments in this field, providing professionals with a complete update. The entire syllabus is supported by innovative teaching methodologies, such as Relearning, and multimedia resources, such as videos, infographics and multimedia summaries. Through them, the graduates will be able to assimilate contents and incorporate them into their practice in a more efficient way.



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100% online and free of pre-established study schedules: this is the first stage of TECH's excellent educational program"

Module 1. Introduction to Neurorehabilitation I: 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. Features
 - 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. Warning Signs
 - 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. Cerebral 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. 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. Overview
 - 1.9.3. ANS Functions
 - 1.9.4. Somatic Nervous System vs. Autonomous 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: 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 Tumors
 - 2.1.4. Cranioencephalic Trauma (CET)
 - 2.1.4.1. General Characteristics
 - 2.1.4.2. Types of CET
 - 2.1.4.3. CET Disorders
 - 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. Alertness 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
 - 2.2.3.2.3. 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. Diffuse vs. Local Brain Injury
 - 2.4.5. Injury Location and Size
 - 2.4.6. Injury Depth
 - 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 vs. Qualitative Assessment
 - 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 (EF)
 - 2.5.6.1. General Advice
 - 2.5.6.2. EF Stimulation
 - 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 Speech Therapy Applications
 - 2.6.1. Introduction
 - 2.6.1.1. ERC 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. Scope 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. Scope 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. Scope 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. Scope of Application

2.6.7. Frequent Behavior in Logopedics

2.6.7.1. Impulsiveness

2.6.7.2. Apathy

2.6.7.3. Disinhibition

2.6.7.4. Anger or Aggressiveness

2.6.8. Conclusions

2.7. Rehabilitation in Occupational Therapy and Speech Therapy Applications

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/Support 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 Foundation

2.8.3. Etiology

2.8.3.1. Genetic and Environmental Factors

2.8.3.2. Classification

2.8.3.2.1. Neurodevelopment 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 Cases
 - 2.10.2. CET Theories
 - 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

- 3.1. Voice Anatomy
 - 3.1.1. Laryngeal Anatomy
 - 3.1.2. Respiratory Structures Involved in Phonation
 - 3.1.2.1. Chest
 - 3.1.2.2. Airway
 - 3.1.2.3. Respiratory Musculature
 - 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. Velo-Palatine Efficiency
 - 3.8.5. VHI
- 3.9. Assessing Vocal Quality
 - 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 Medical 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 Dysphonia
 - 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. Justification
 - 4.7.3. TVSO
- 4.8. Estill Voice Training as a Technique to Improve Vocal Function
 - 4.8.1. Jo Estill and the Creation of the Model
 - 4.8.2. Principles of Estill Voice Training
 - 4.8.3. Description

Module 5. Orofacial Myofunctional Therapy (OMT) and Early Care

- 5.1. Neonatal Development
 - 5.1.1. Evolutionary Development in Neonates
 - 5.1.2. NBAS: Neonatal Behavioral Assessment
 - 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
 - 5.2.5. 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 Start
 - 5.5.2. Impact at the Orofacial Level
 - 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
- 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: Block 1
 - 5.8.1. Intake Analysis
 - 5.8.2. Undernourishment
 - 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. Infant Dysphagia
 - 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: Block 2
 - 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. Assessment and Intervention in Dysphagia of Neurological Origin 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: Chewing
- 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. Structural 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. Medical History
 - 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. Assessment of Nutritional Status
 - 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 2002 (NRS 2002)
 - 6.6.3. Nutritional Assessment
 - 6.6.4. Undernourishment
 - 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. Normal/Typical and Pathological Pattern
 - 7.2.1. Introduction
 - 7.2.2. Apparatus
 - 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
 - 7.3.3. Aesthetic/Biofacial Analysis
 - 7.3.4. Anatomical-Functional Assessment
 - 7.3.5. Orofacial System Functions Assessment
 - 7.3.6. Atypical Swallowing
 - 7.3.7. Myofunctional Assessment Protocol
 - 7.3.8. 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 I
 - 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. Features
 - 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. Case Study 1
 - 7.10.3. Case Study 2
 - 7.10.4. Case Study 3
 - 7.10.5. Case Study 4
 - 7.10.6. Bibliography

Module 8. Dietary Alteration in Congenital Neurological Disorder. ICP

- 8.1. Definition and History of ASD
 - 8.1.1. Breathing
 - 8.1.2. Respiratory Pattern and Classification
 - 8.1.3. Airway Analysis
 - 8.1.4. Chewing
 - 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. Relation between Breathing and Swallowing: Importance of Breathing-Swallowing Coordination during Swallowing
- 8.2. Detection and Early Onset Diagnosis of Autism Spectrum Disorder
 - 8.2.1. Neurological Disorders and Stomatognathic Development
 - 8.2.2. Cranial Nerve Assessment
 - 8.2.3. Oral Function Development
 - 8.2.4. Facial Structure Growth
 - 8.2.5. Orofacial System Disorders
 - 8.2.6. Orofacial Maturation
 - 8.2.7. Respiratory Structures
 - 8.2.8. Facial Musculature
 - 8.2.9. Oral Musculature
 - 8.2.10. Laryngeal Musculature
- 8.3. Methodological Principles
 - 8.3.1. Individualized Assessment for Diet Characteristics
 - 8.3.2. Oral Reflexes Assessment
 - 8.3.3. Diet and Cerebral Palsy, Main Associated Problems
 - 8.3.4. Safety and Efficacy Disorders
 - 8.3.5. Clinical Examination of Swallowing: What Tests Are Most Appropriate for People with CP?
 - 8.3.6. Physical Examination - Gross Motor Function and Nutrition
 - 8.3.7. Instrumental Examination
 - 8.3.8. Which Diagnostic Test is the Most Effective for Diagnosing Dysphagia in People with CP?
 - 8.3.9. Importance of Interdisciplinary Work in the Assessment of Dysphagia
 - 8.3.9.1. How to Deal with the Assessment of Swallowing in People with CP?
 - 8.3.9.2. When Should I Refer the Patient?
 - 8.3.10. Procedure for Action in the Event of a Swallowing and/or Nutritional Problem
- 8.4. General Diet Intervention Guidelines
 - 8.4.1. Definition
 - 8.4.2. Main Characteristics
 - 8.4.3. Speech Therapy Intervention and Treatment
 - 8.4.4. Multidisciplinary Neurorehabilitation Treatment
 - 8.4.5. Symptoms
 - 8.4.6. Muscular Dysfunction
 - 8.4.7. Active Control
 - 8.4.8. Case Analysis
- 8.5. Dietary Problems in Children with ASD: Single Case Intervention Proposal. Part One
 - 8.5.1. Definition
 - 8.5.2. Main Characteristics
 - 8.5.3. Speech Therapy Intervention and Treatment
 - 8.5.4. Multidisciplinary Neurorehabilitation Treatment
 - 8.5.5. Symptoms
 - 8.5.6. Muscular Dysfunction
 - 8.5.7. Active Control
 - 8.5.8. Case Analysis
- 8.6. Dietary Problems in Children with ASD: Single Case Intervention Proposal. Part Two
 - 8.6.1. First Phase: Postural, Oral and Nasal Hygiene
 - 8.6.2. Implementing New Oral Habits
 - 8.6.3. Creating Routines and Neuromotor Behaviors with High Frequency and Minimal Intensity
 - 8.6.4. Second Phase: Intervention Program based on Structure Analysis
 - 8.6.5. Creating Individualized Programs
 - 8.6.6. Selecting Favorable Oral Motor Exercises
 - 8.6.7. Third Phase: Feeding Strategies and Competences

- 8.6.8. Positioning
- 8.6.9. Developing Strategies for Adequate Oral Feeding
- 8.6.10. Enteral Feeding
- 8.7. Developing Strategies and Action Plans
 - 8.7.1. Type of Diet
 - 8.7.2. Texture and Consistency Adaptation
 - 8.7.3. Volume Modification
 - 8.7.4. Anticipation: Sensitive Strategies
 - 8.7.5. Postural Adaptation Assessment
 - 8.7.6. Importance of Food Taste and Appearance without Forgetting the Safety Factor - Textured Food
 - 8.7.7. Meal Environment and Duration
 - 8.7.8. Adequate Nutritional Value
 - 8.7.9. Diet-Related Support Systems and Support Products
 - 8.7.10. Case Analysis and Decision-Making
- 8.8. Adaptations and Assistance from Occupational Therapists
 - 8.8.1. Functional Positioning Importance of the "Eater" and "Feeder"
 - 8.8.2. Technical Positioning Aids for Feeders
 - 8.8.3. Technical Positioning Aids for CP People during Feeding
 - 8.8.4. Support Products related to Feeding
 - 8.8.5. Creating Adaptations
 - 8.8.6. Importance of Posture in People on Enteral Nutrition: Relevant Aspects
 - 8.8.7. Participatory Feeding and Autonomy during Feeding
 - 8.8.8. Occupational Therapy and Speech Therapy
- 8.9. Oropharyngeal Dysphagia in CPC
 - 8.9.1. Referrals and Multidisciplinary Team
 - 8.9.2. Adapting Feeding
 - 8.9.3. Family and Medical Intervention
 - 8.9.4. Assessing Swallowing Process
 - 8.9.5. Individualized Intervention
 - 8.9.6. Texture and Volume Modification as Fundamental Aspects
 - 8.9.7. Sensory Enhancement Techniques
 - 8.9.8. How to Deal with Oral Sensitivity Problems
 - 8.9.9. Postural Changes and Swallowing Facilitating Maneuvers

- 8.9.10. Drug Intake Aids/Oral Hygiene Products
- 8.9.11. Importance of Maintaining Intraoral Stimulation in People on Enteral Nutrition
- 8.10. Nutrition and Cerebral Palsy
 - 8.10.1. Concept of Nutrition: Growth and Development
 - 8.10.2. Relation between Nutrition and Brain Damage, Main Associated Problems
 - 8.10.3. Importance of Maintaining an Adequate Nutritional Intake
 - 8.10.4. Malnutrition, Undernutrition and Dehydration Concepts and Consequences
 - 8.10.5. Basic and Necessary Nutrients
 - 8.10.6. Importance of Nutritional Monitoring and Assessment in CP People
 - 8.10.7. Techniques to Achieve Adequate Nutritional Support; Increased Caloric Density, Oral Modules, Oral Supplementation and Enteral Nutrition
 - 8.10.8. Importance of Person-Centered Nutrition: Individualized Plans
 - 8.10.9. Enteral Nutrition

Module 9. Feeding Problems in Pervasive Developmental Disorders: Autism

- 9.1. Definition and History
 - 9.1.1. Introduction
 - 9.1.2. Conceptual Review
 - 9.1.2.1. History
 - 9.1.2.2. Prevalence
 - 9.1.2.3. DSM Inclusion
 - 9.1.3. Current Classification
 - 9.1.3.1. Change from DSM-IV to DSM-V
 - 9.1.3.2. Autism Spectrum Disorder 299.00 (F84.0)
 - 9.1.3.3. Conclusions
 - 9.1.3.4. Bibliography
- 9.2. Early Detection and Diagnosis
 - 9.2.1. Introduction
 - 9.2.2. Social Communication and Interaction
 - 9.2.3. Communication Skills
 - 9.2.4. Social Interaction Skills

- 9.2.5. Behavioral and Thought Flexibility
- 9.2.6. Sensory Processing
- 9.2.7. Scales and Instruments
- 9.2.8. Conclusions
- 9.2.9. Bibliography
- 9.3. Heterogeneity in Autism
 - 9.3.1. Introduction
 - 9.3.2. Age-Related Factors
 - 9.3.3. Onset of Signs
 - 9.3.4. Autism in Preschool
 - 9.3.5. Autism in School
 - 9.3.6. Autism in Adolescence
 - 9.3.7. Autism in Adulthood
 - 9.3.8. Sex-Related Factors
 - 9.3.9. Etiology-Related Factors
 - 9.3.10. Conclusions
- 9.4. Comorbidity
 - 9.4.1. Introduction
 - 9.4.2. Expressive Language Disorders
 - 9.4.3. Most Prevalent Comorbid Disorders
 - 9.4.4. ADHD
 - 9.4.5. Anxiety and Depression
 - 9.4.6. Obsessions and Compulsions
 - 9.4.7. Dyssomnias and Parasomnias
 - 9.4.8. Movement Abnormalities
 - 9.4.9. Tourette Syndrome
 - 9.4.10. Disorders Associated with ASD in Childhood
 - 9.4.11. High-Functioning Autism
 - 9.4.12. Family and Environment
 - 9.4.13. Conclusions
- 9.5. Family and Environment Intervention
 - 9.5.1. Introduction
 - 9.5.2. Intervention with Families
 - 9.5.3. Referents to Adapt Family Situation
 - 9.5.4. Environmental Intervention
- 9.5.5. Family Therapy
- 9.5.6. Conclusions
- 9.6. Nutrition in Children with Autism
 - 9.6.1. Introduction
 - 9.6.2. Specific Diet Characteristics
 - 9.6.3. Metabolism
 - 9.6.4. Enzyme Deficiency
 - 9.6.5. Food
- 9.7. Specific Problems and Inappropriate Intervention Patterns
 - 9.7.1. Not Accepting Spoon Feeding
 - 9.7.2. Leaving Food in the Mouth
 - 9.7.3. Chewing
 - 9.7.4. Hyperselectivity
 - 9.7.5. Crying
 - 9.7.6. Inadequate Guidelines
 - 9.7.7. Recommendations
 - 9.7.8. Conclusions
- 9.8. Dietary Problems in Children with Autism
 - 9.8.1. Introduction
 - 9.8.2. Strategies
 - 9.8.3. Leading National Work Teams
 - 9.8.4. Intervention Guidelines
 - 9.8.5. Recommendations
 - 9.8.6. Order of Food Introduction
 - 9.8.7. Conclusions
- 9.9. Clinical Cases: Solid Food Refusal
 - 9.9.1. Medical History Qualitative Assessment of Communication and Language
 - 9.9.2. Structural and Functional Orofacial Assessment
 - 9.9.2.1. Intervention Strategies
 - 9.9.3. Intervention Programs



- 9.9.4. Respiratory Function
 - 9.9.4.1. Awareness and Control of Respiratory Functions
 - 9.9.4.1.1. Nasal Hygiene
 - 9.9.4.1.2. Postural Hygiene
 - 9.9.4.2. Nasal Breathing and Nasal Murmur
 - 9.9.4.3. Enhancing Olfactory Sensory Response
- 9.9.5. Dietary Function
- 9.9.6. Oral Sensitivity
 - 9.9.6.1. Oral Hygiene
 - 9.9.6.2. Oral Stimulation
- 9.9.7. Oral Motor Skills
 - 9.9.7.1. Oral Stereognosia
 - 9.9.7.2. Gag Reflex Inhibition
 - 9.9.7.3. Taste Stimulation
- 9.9.8. Masticatory Muscle Relaxation
- 9.9.9. Chewing without Food
- 9.9.10. Chewing with Food
- 9.9.11. Conclusions on Speech Therapy Intervention
- 9.10. Etiopathogenesis
 - 9.10.1. Introduction
 - 9.10.2. Endocrine System
 - 9.10.3. Genetics and Heritability
 - 9.10.4. Functional Magnetic Resonance Imaging
 - 9.10.5. Oxytocinergic System
 - 9.10.6. Conclusions
 - 9.10.7. Bibliography
 - 9.10.7.1. Conclusions
 - 9.10.7.2. Bibliography

07

Clinical Internship

Like any other TECH Hybrid Master's Degree, this program allocates 1,800 hours to theoretical learning, from an innovative 100% online study platform. At the end of this teaching stage, the specialists will continue their update through a practical, on-site and immersive internship in a clinical facility of great rigor and prestige. As a result, the physicians are before the program that will provide them with a complete update in a participative and dynamic way.



“

Take these clinical practices in Speech Neurorehabilitation and Vital Functions Analysis in a 100% on-site and immersive manner, in a state-of-the-art healthcare facility”

This internship has 120 teaching hours where the health professional will be incorporated into different care dynamics within a demanding clinical facility. From this institution, they will apply the procedures and techniques assimilated theoretically in real cases that need to overcome different conditions such as Dysphagia, Hypophonia generated by Alzheimer's disease and other orofacial disorders.

During this internship, totally on-site and intensive, the professionals will have to complete consecutive days of 8 hours, from Monday to Friday, during 3 educational weeks. Throughout this phase, they will rub shoulders with the best experts in the sector and will be able to learn directly from their experience. At the same time, you will have the support of an assistant tutor who will be in charge of supervising your educational progress and will introduce you to the more complex tasks of the care unit.

The practical teaching will be done with the accompaniment and guidance of professors and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for medical praxis (learning to be and learning to relate).

The procedures described below will be the basis of the specialization, and their realization will be subject to the center's own availability, its usual activity and workload, the proposed activities being the following:





Module	Practical Activity
Dentistry and Orofacial Disorder	Avoid future sequelae in the temporo-mandibular joints and their associated musculature through specific treatments against stress and bruxism
	Examine the patient for craniofacial malformations that may indicate the development of such disorders
	Develop specific relaxation techniques for the tone and voluntary motor control of patients suffering from Facial Paralysis
New Technologies in Neurorehabilitation and Speech Therapy	Apply painless and effective electrical stimuli (Neurostimulation) for the treatment of Dysphagia, or difficulty in swallowing
	Self-regulate brain activity and specialization through Neurofeedback techniques
	Indicate speech and cognitive stimulation therapies for patients with Alexias and Agraphia
	Increase blood flow to the brain through specific medications that replace depleted brain chemicals and prevent conditions such as Aphasia
Orofacial and Myofunctional Therapy Trends	Prepare the patient with the Hypophonia typical of Parkinson's disease to better project their voice and avoid a monaural noise of multiple babbling while speaking
	Correct the position of the tongue and teeth through Orthodontic treatments against inadequate habits such as mouth breathing
	Perform muscular exercises in the phonoartulatory organs to adjust the tone and mobility of the voice
	Learn proper breathing, swallowing, chewing and phonation patterns, the proper position of the lips and tongue, according to the alteration
Feeding in Congenitally Acquired Disorder	Implement feeding programs adapted and individualized to each case in a preventive, re-educative and rehabilitative way
	Indicate occupational and speech therapy to patients with feeding reluctance due to ADHD and Autism Spectrum Disorders
	Develop technical aids on the positioning of the feeder and the person to be fed
	Achieve an adequate nutritional intake in the patient with Cerebral Palsy by means of techniques such as Oral Modules, Oral Supplementation and Enteral Nutrition

Civil Liability Insurance

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

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

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



General Conditions of the Internship Program

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

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

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

4. CERTIFICATION: Professionals who pass the Hybrid Master's Degree will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Hybrid Master's Degree shall not constitute an employment relationship of any kind.

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

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

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

08

Where Can I Do the Clinical Internship?

The itinerary of this Hybrid Master's Degree is completed with a clinical internship in state-of-the-art hospital institutions. In the centers chosen by TECH for this phase of the educational program, the specialist will have access to first level diagnostic tools and techniques. They will also participate in high-caliber therapeutic actions where they will offer innovative health solutions to real patients. At the same time, throughout the educational process, they will be accompanied by prestigious and experienced professionals.





“

The on-site internship of this Hybrid Master's Degree will complement in an exceptional way the theoretical knowledge acquired during the initial theoretical stage"

tech 54 | Where Can I Do the Clinical Internship?



The student will be able to complete the practical part of this Hybrid Master's Degree at the following centers:



Medicine

Hospital HM Modelo

Country	City
Spain	La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

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

Related internship programs:

- Anaesthesiology and Resuscitation
- Spine Surgery





Medicine

Hospital HM Regla

Country	City
Spain	León

Address: Calle Cardenal Landázuri, 2,
24003, León

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

Related internship programs:

- Psychiatric Treatments Update
in Minor Patients



Medicine

Hospital HM Torrelodones

Country	City
Spain	Madrid

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

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

Related internship programs:

- Anaesthesiology and Resuscitation
- Hospital Pediatrics



Medicine

Centro Paso a Paso

Country	City
Spain	Madrid

Address: Paseo de la Democracia 10 Portal
4 Bajo Entrada por Calle Rosalía de Castro
(Peatonal, 28850 Torrejón de Ardoz, Madrid)

Rehabilitation center specialized in health and early care
services.

Related internship programs:

- Neuropsychology and Education
- Physiotherapy in Primary Care

09

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.

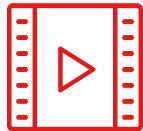
The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

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

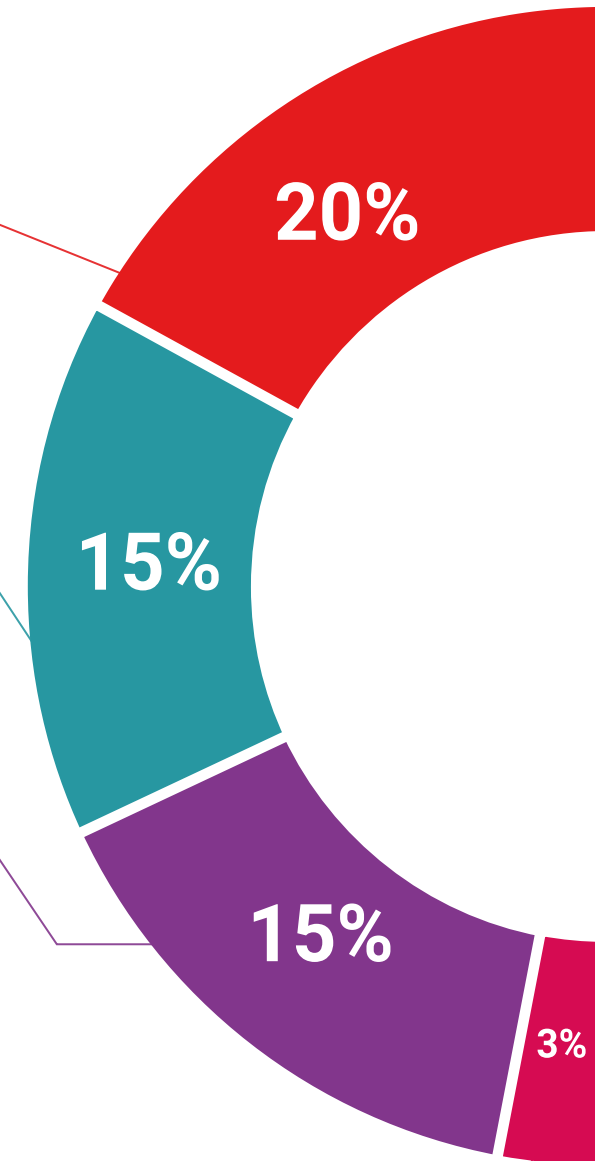
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

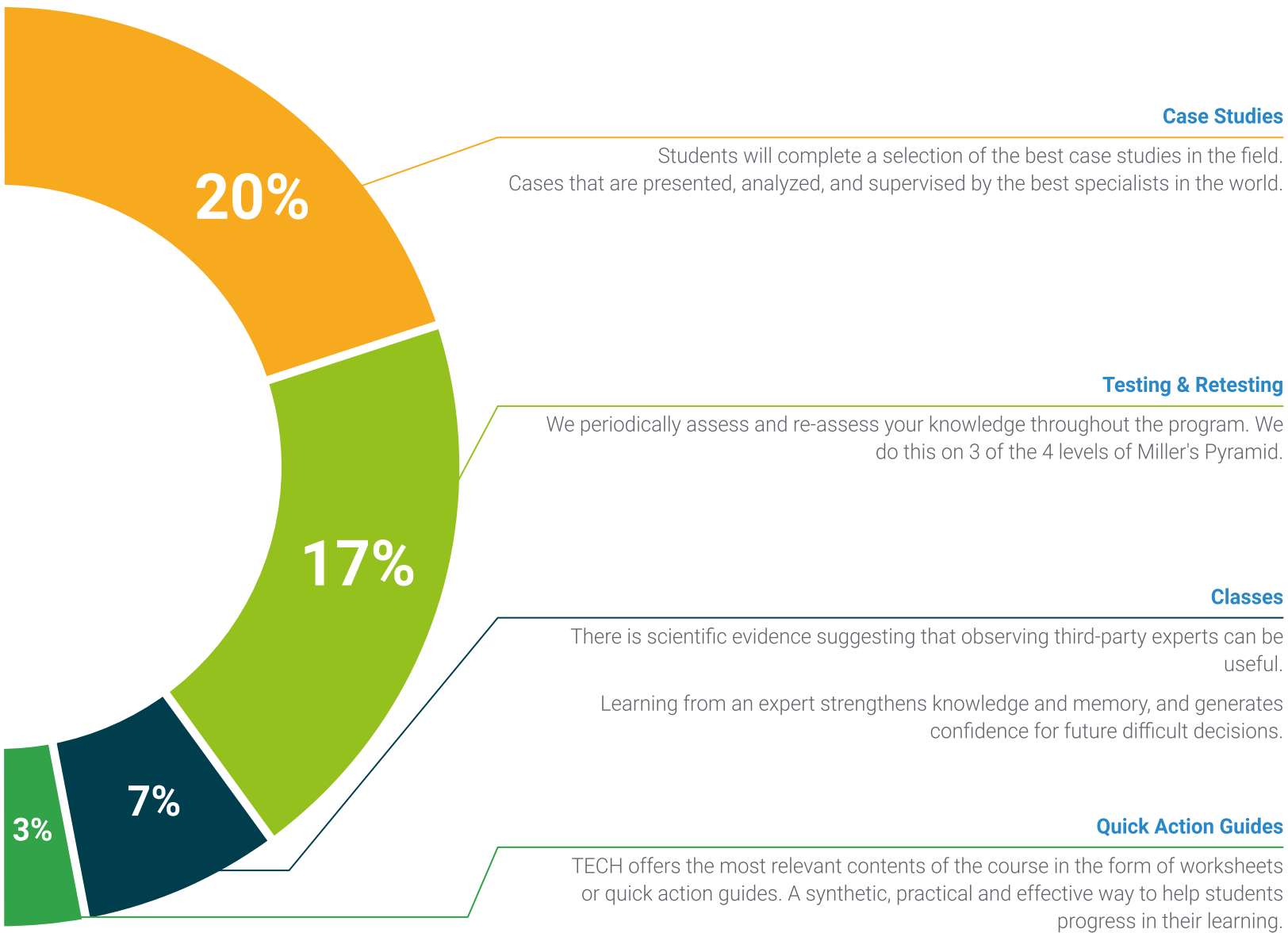
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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****Testing & Retesting****Classes****Quick Action Guides**

10 Certificate

This Hybrid Master's Degree in Speech Neurorehabilitation and Vital Function Analysis. Orofacial and Myofunctional Therapy guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid 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
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This private qualification will allow you to obtain a **Hybrid Master's Degree diploma in Speech Neurorehabilitation and Vital Function Analysis. Orofacial and Myofunctional Therapy** endorsed by **TECH Global University**, the world's largest online university.

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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: **Hybrid Master's Degree in Speech Neurorehabilitation and Vital Function Analysis. Orofacial and Myofunctional Therapy**

Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Credits: **60 + 4 ECTS**





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