

Advanced Master's Degree Clinical Neuropsychology and Neuroeducation





Advanced Master's Degree Clinical Neuropsychology and Neuroeducation

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/psychology/advanced-master-degree/advanced-master-degree-clinical-neuropsychology-neuroeducation

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01

Introduction

Knowing how the brain works is essential in the field of health, but also in the field of education. Therefore, neuroeducation is one of the emerging sciences that is currently gaining more importance. This Advanced Master's Degree in Clinical Neuropsychology and Neuroeducation aims to take professionals to a higher level of knowledge of the brain applied to these two areas, which will allow them to perform quality interventions, according to each problem.



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In-depth knowledge of neurodevelopment and its multiple implications, in a comprehensive Advanced Master's Degree created to propel you to another professional level"

Neuropsychology is based on the natural scientific method to approach the study of the brain. Through the combination of the hypothetico-deductive and analytical-inductive methods the professionals of this discipline develop the therapeutic intervention both in individuals with congenital or supervening brain lesions, as well as in individuals without lesions.

This Advanced Master's Degree has two distinct but highly complementary areas of study. On the one hand, clinical neuropsychology and, on the other hand, neuroeducation. The objective of the first of these areas is to give the psychologist a mastery of the neurological and biochemical mechanisms that occur in mental illness and health. For its part, neuropsychology in education aims to teach professionals in the brain aspects that influence education and learning.

The understanding of the chemical and anatomical structures involved in each of the processes within the field of health and also mental disorders, provides a global vision necessary for true mastery in the discernment of the human being, which joins the broad spectrum of intervention in specialization to give a comprehensive knowledge of the subject. The relationship of brain biochemistry and limbic structures with basic emotions, as well as the way in which the reticular system affects our behavior and consciousness, are essential topics of this educational program.

Additionally, psychologists will be able to enjoy 10 unique *Masterclasses*, designed by a renowned international specialist in Clinical Neuropsychology. Thanks to the advice of this expert, professionals will be able to keep up to date with the latest findings in the evaluation and care of people affected by brain injuries.

We will not only take you through the theoretical knowledge we offer, but we will introduce you to another way of studying and learning, one which is simpler, more organic, and efficient. We will work to keep you motivated and to develop your passion for learning, helping you to think and develop critical thinking skills.

This **Advanced Master's Degree in Clinical Neuropsychology and Neuroeducation** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The latest technology in online teaching software
- ◆ The teaching system intensely visual, supported by graphic and schematic contents that are easy to assimilate and understand
- ◆ Practical cases presented by practicing experts
- ◆ State-of-the-art interactive video systems
- ◆ Teaching supported by remote education
- ◆ Continuous updating and retraining systems
- ◆ Autonomous learning: full compatibility with other occupations
- ◆ Practical exercises for self-evaluation and learning verification
- ◆ Support groups and educational synergies: questions to the expert, discussion forums and knowledge
- ◆ Communication with the teacher and individual reflection work
- ◆ The availability of access to the contents from any fixed or portable device with an Internet connection
- ◆ Databases of supplementary materials are permanently available, even after completing the program



Update your skills in Clinical Neuropsychology with the guidance of a leading international expert. You'll access 10 world-class Masterclasses!"

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An educational program created for professionals who aspire for excellence, and that will enable you to acquire new skills and strategies easily and effectively"

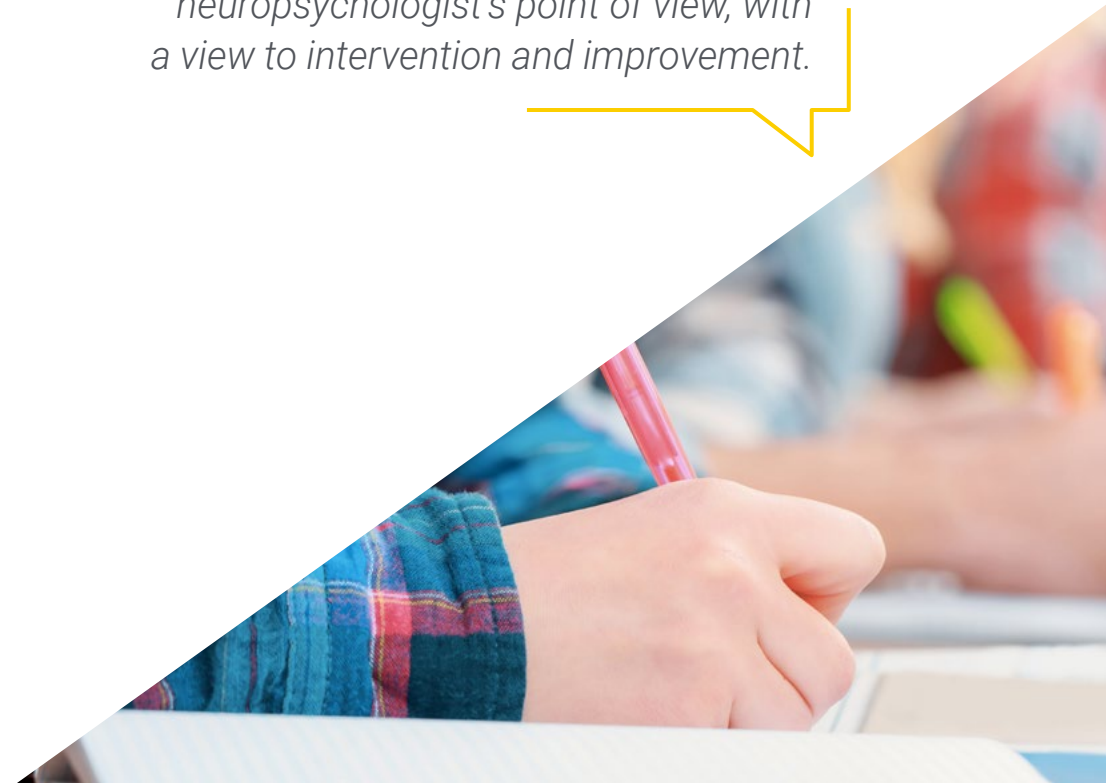
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn 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 during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

A deep and comprehensive dive into strategies and approaches in Clinical Neuropsychology and Neuroeducation.

The sensory systems of the human being studied from the neuropsychologist's point of view, with a view to intervention and improvement.



02

Objectives

Our goal is prepare highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping professionals reach a much higher level of expertise and control. A goal that you can take for granted, with high intensity and precision specialization.





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If your goal is to improve in your profession and acquire a qualification that will enable you to compete with the best, then look no further: Welcome to TECH”



General Objectives

- ◆ Describe the overall working of the brain and the biochemistry that activates or inhibits it
- ◆ Use brain activity as a map for mental health disorders
- ◆ Describe the brain-mind relationship
- ◆ Develop knowledge of the technology which can cause changes in the brain in order to overcome mental illnesses
- ◆ Describe the most common neurological disorders in psychological behavior
- ◆ Describe the relationship between the central nervous system, the endocrine system and immune systems
- ◆ Understand current psychopharmacology and integrate this knowledge into psychological tools that can improve mental illness
- ◆ Qualify professionals for the practice of neuropsychology in education in the development of children and young people
- ◆ Learn how to carry out specific programs to improve school performance
- ◆ Access the forms and processes of research in neuropsychology in the school environment
- ◆ Increase the capacity for work and autonomous resolution of learning processes
- ◆ Study the attention to diversity from the neuropsychological approach.
- ◆ Learn about the different ways to implement enrichment systems for learning methodologies in the classroom, especially aimed at diverse students
- ◆ Analyze and integrate the knowledge necessary to foster student's school and social development



Specific Objectives

Module 1. Basis of Neurosciences

- ◆ Describe the functioning of the nervous system
- ◆ Explain the basic anatomy of structures related to learning
- ◆ Define the basic physiology of learning-related structures
- ◆ Identify the main brain structures related to motor skills
- ◆ Define the plastic brain and neuroplasticity
- ◆ Explain the effects of environment on brain development
- ◆ Describe the changes in the infant's brain
- ◆ Explain the evolution of the adolescent brain
- ◆ Define the characteristics of the adult brain

Module 2. Developmental Neuropsychology

- ◆ Identify the concepts between Coaching, Neuroscience, Neurolearning, basic learning devices, multiple intelligences, movement and learning, Neurodidactics, and play within the educational fields
- ◆ Know the functioning of the brain and its structures
- ◆ Establish the concepts of learning and the different levels, styles, types, and competences of learning
- ◆ Relate the Basic Learning Devices and Executive Functions in the development of activities
- ◆ Know the multiple forms of intelligence and the feasibility of implementing them in the educational field
- ◆ Recognize the importance of play as a tool for Neurodidactics and Learning
- ◆ Implement Movement and Learning exercises in the classroom as learning sessions
- ◆ Relate Coaching with Neuroscience and the empowerment it generates in students
- ◆ Determine clearly the way to refer students

Module 3. Principles of Neuroanatomy

- ◆ Know the origins and the evolutionary process of the nervous system
- ◆ Obtain a general vision on the formation of the nervous system
- ◆ Know the fundamental basics of Neuroanatomy

Module 4. Introduction to Neuropsychology

- ◆ Learn the basic concepts of neuropsychology
- ◆ Know the methods of evaluation and the fundamentals of research in neuropsychology
- ◆ Explore the development of the nervous system and its relationship to neurological disorders
- ◆ Understand the structure and function of the nervous system at the cellular and molecular levels

Module 5. Functional Neuroanatomy

- ◆ Understand the main functions of the brain lobes and their subdivisions
- ◆ Analyze how lesions in different areas of the frontal lobe affect thinking and behavior
- ◆ Explore how lesions in the motor cortex influence the control and execution of movements
- ◆ Understand brain asymmetry and its impact on cognitive and emotional functions

Module 6. Cognitive Functions

- ◆ Understand the neurobiological bases underlying attention
- ◆ Explore the neurobiological bases underlying language
- ◆ Research the neurobiological basis of sensory perception
- ◆ Understand the neurobiological basis of visuospatial perception

Module 7. Brain Injury

- ◆ Analyze the effects of early brain injury on neuropsychological development
- ◆ Explore the disorders caused by vascular problems in the brain
- ◆ Become familiar with epileptic disorders and their neuropsychological implications
- ◆ Understand alterations in the level of consciousness and their neuropsychological consequences

Module 8. Aphasias, Agraphias and Alexias

- ◆ Understand the characteristics and causes of Broca's aphasia
- ◆ Analyze the characteristics and causes of Wernicke's aphasia
- ◆ Explore the characteristics and causes of Conduction Aphasia
- ◆ Understand the characteristics and causes of Global Aphasia
- ◆ Become familiar with the characteristics and causes of the different Aphasias, Agraphias and Alexias

Module 9. Neurodegenerative Diseases

- ◆ Analyze how cognitive reserve affects aging and mental health
- ◆ Explore different neurological disorders, such as Multiple Sclerosis and Amyotrophic Lateral Sclerosis
- ◆ Know the main characteristics of movement disorders such as Parkinson's disease
- ◆ Understand the aging process and its effects on cognition

Module 10. Neuroeducation

- ♦ Define the principles of Neuroeducation.
- ♦ Explain the main neuromyths.
- ♦ Explain strategies for early stimulation and interventions.
- ♦ Define the theory of attention.
- ♦ Explain emotion from a neurological point of view.
- ♦ Explain learning from a neurological point of view.
- ♦ Explain memory from a neurological point of view.

Module 11. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- ♦ Learn about the characteristics and development of the organs of sight
- ♦ Detect, evaluate and intervene in the classroom with visually impaired students
- ♦ Acquire the ability to work for the improvement of visual perception
- ♦ Become familiar with vision and reading skill training programs
- ♦ Study the saccadic models
- ♦ Develop characteristics and development of the organs of the ear
- ♦ Learn about the risk factors
- ♦ Identify ways to detect, evaluate and intervene in the classroom with hearing impaired students
- ♦ Acquire the ability to work for the improvement of hearing
- ♦ Know the psychobiological aspects of hearing loss
- ♦ Develop the necessary skills to make curricular adaptations in this area
- ♦ Study all the implications of visual and auditory impairment in developing literacy

Module 12. Motricity, Laterality and Writing

- ♦ Delve into the relationship between learning and neurodevelopment in the educational field
- ♦ Study aspects related to gross and fine psychomotor skills
- ♦ Know the relationship between motor skills and the psyche and its developmental implications
- ♦ Study laterality in relation to the development of cognitive abilities
- ♦ Develop the different degrees of evolution in the evolutionary lateral stages
- ♦ Learning the different motor disorders from their impact on learning
- ♦ Unravel all aspects of the reading acquisition process
- ♦ Learn to intervene in possible difficulties related to learning in the classroom: dysgraphia, dyscalculia, dyslexia
- ♦ Develop intervention models for prevention, development and learning difficulties in the school environment
- ♦ Develop communication and relationship skills with fathers, mothers and families

Module 13. Intervention in High-Capacity Individuals

- ♦ Know the integrated diagnostic model and its phases
- ♦ Know the comorbidities that usually accompany the spectrum of high-capacity individuals
- ♦ Differentiate between manifestations or symptoms that could be related to high capacity and symptoms that could be related to the presence of disorders
- ♦ Organize the decision-making process based on initial diagnoses
- ♦ Propose specific lines of action for educational intervention
- ♦ Analyze the lines of intervention proposed at family and personal levels based on case studies assessing their impact

Module 14. Multiple Intelligences, Creativity, Talent and High Abilities

- ◆ Learn all aspects related to the theory of multiple intelligences and their assessment
- ◆ Learn the neuropsychological basis of creativity and its development in the educational context
- ◆ Know the possibilities of working in the area of high abilities.

Module 15. Dyslexia, Dyscalculia and Hyperactivity

- ◆ Incorporate the necessary knowledge to detect and intervene in the classroom in cases of dyscalculia, dyslexia and ADHD
- ◆ Understand the incidence of comorbidity in this context.
- ◆ Learn about the possibilities of neurotechnology applied to dyslexia, ADHD and dyscalculia

Module 16. Neurolinguistic Processes, Difficulties and Intervention Programs

- ◆ Develop the neurobiological aspects involved in language development.
- ◆ Study the neuropsychological bases of language and the potential for its work and development
- ◆ Analyze the processes of language comprehension, sounds and reading comprehension.
- ◆ Analyze language and literacy disorders
- ◆ Learn how to assess, diagnose and correct language difficulties.

Module 17. Memory Processes, Skills and TIC

- ◆ Explore and gain in-depth knowledge of the characteristics and functioning of memory processes, in relation to the holistic development of the person, in the specific field of learning

Module 18. Research Methodology I

- ◆ Learn research methodology and its different approaches
- ◆ Develop a complete research method, from the choice of the topic, to the proposal and production
- ◆ Learn how to conduct quantitative research and analysis of results

Module 19. Research Methodology II

- ◆ Learn descriptive statistics
- ◆ Learn how to develop a hypothesis test and interpret it
- ◆ Study the use of correlational and group comparison statistics and be able to use them in research

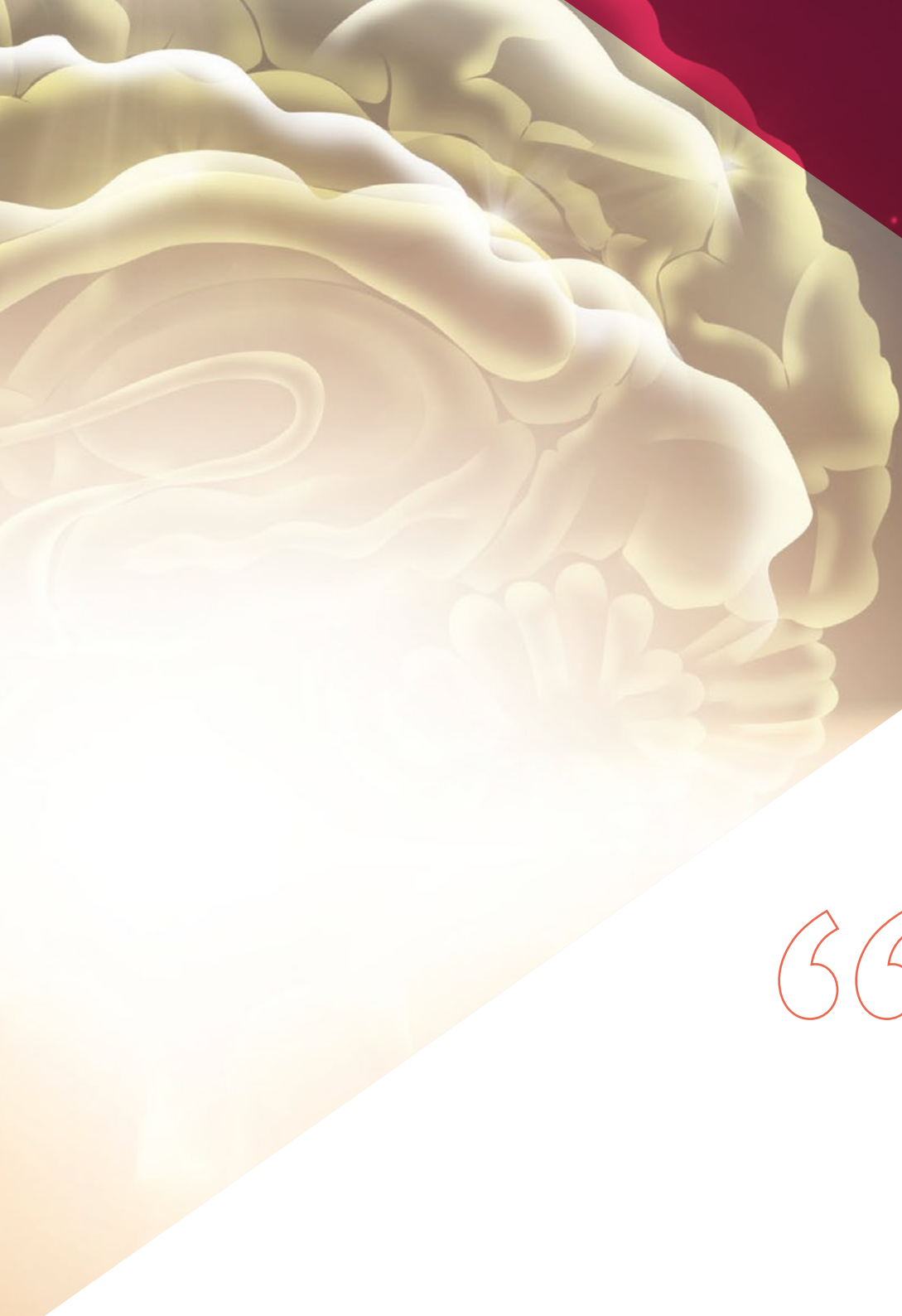


Our goal is to help you achieve yours, through a very unique program of specialization that will become an unparalleled professional growth experience"

03 Skills

Once all the contents have been studied and the objectives of the Grand Master's Degree in Clinical Neuropsychology and Neuroeducation have been achieved, the professional will have a superior skills and better performance in this area. A very complete approach, in a high-level Advanced Master's Degree, which makes the difference.





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Achieving excellence in any profession requires effort and perseverance. But, above all, the support of professionals, who will give you the boost you need, with the necessary means and assistance. At TECH, we offer you everything you need”



General Skills

- ◆ Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
- ◆ Recognize the need to maintain professional skills up to date, with special emphasis on autonomous and continuous learning of new knowledge
- ◆ Develop the capacity for critical analysis and research in your professional field
- ◆ Apply neuropsychology in the educational environment
- ◆ Conduct programs to improve school performance
- ◆ Apply the research methods of neuropsychology of education
- ◆ Construct new ways of attending to diversity in the classroom



Our objective is very simple: to offer you quality specialized knowledge, with the best teaching methods currently, so that you can reach new heights of excellence in your profession"



Specific Skills

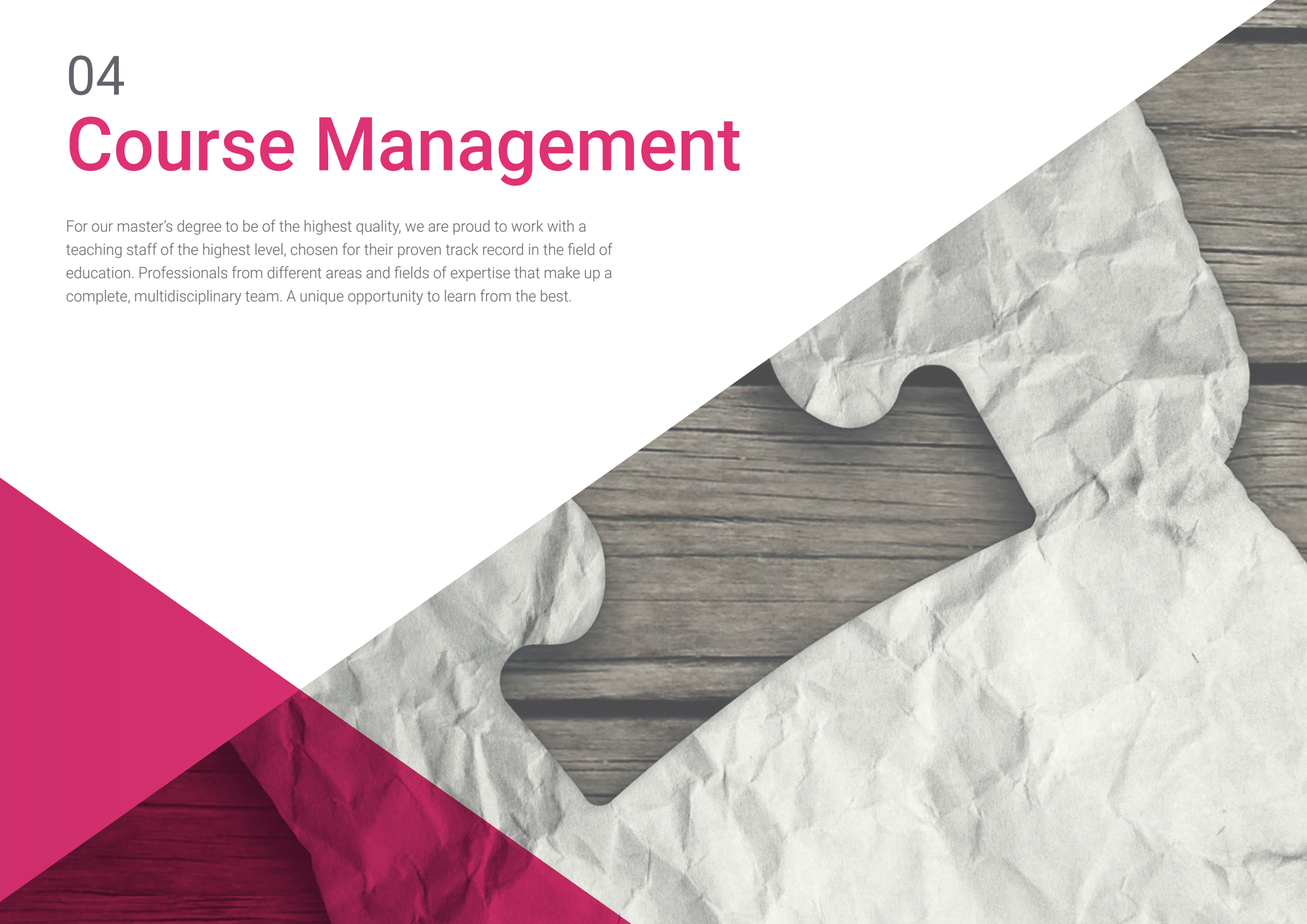
- ◆ Learn how the reptilian brain deals with basic, pattern and parameter intelligences
- ◆ Master the relationship between the limbic system and our emotional universe
- ◆ Have knowledge of the brain chemicals that affect our emotions
- ◆ Learn the neurological seat of our emotions
- ◆ Research intuition and its scientific and measurable side
- ◆ Learn about the unconscious mechanisms of emotional intelligence
- ◆ Determine from scientific knowledge that "emotion decides and reason justifies"
- ◆ Learn about the drivers of motivation in human beings
- ◆ Differentiate from the neurological reality the fact of thinking from the fact of reflecting
- ◆ Discover the evolutionary succession of our neocortex
- ◆ Have knowledge of the rational capacity to associate, represent in space and reflect
- ◆ Learn about the Alpha fibers and their function
- ◆ Learn about the Beta fibers and their function
- ◆ Learn about the Gamma fibers and their function
- ◆ Learn about the Delta fibers and their function
- ◆ Review and list sympathetic and preganglionic nerve fibers
- ◆ Learn how to differentiate mechano-receptors from other fibers
- ◆ Master the importance of sympathetic nociceptors in pain and sensitivity
- ◆ Learn the morphology and function of preganglionic fibers
- ◆ Discover the sympathetic and parasympathetic mechanisms

- ◆ Learn the functions and mechanisms of the spinal nerves
 - ◆ Learn how to differentiate between efferent and afferent communication
 - ◆ Learn the properties of the gray matter and its communication vehicle, white matter
 - ◆ Learn the functions of the Varolio Bridge
 - ◆ Learn how the medulla oblongata influences our global behavioral system
 - ◆ Understand the description and function of the cerebellum
 - ◆ Master the global role of the amygdalae, hippocampus, hypothalamus, cingulum, sensory thalamus, basal nuclei, periaqueductal gray region, pituitary gland and nucleus accumbens
 - ◆ Learn about R Carter's theory of brain evolution in 2002
 - ◆ Manage the global role of the orbital frontal lobe
 - ◆ Linking neuromotor transmission and sensory perception
 - ◆ Gain knowledge of the hypothalamic axis and the endocrine system
 - ◆ Understand the neurological mechanisms and chemistries that regulate temperature, blood pressure, food intake, and reproductive function
 - ◆ Assimilate the latest knowledge on the relationship between the nervous system and the immune system
 - ◆ Recognize the anatomy of the brain and its relationship with the development of different learning processes from the motor, sensory, emotional, etc. point of view
 - ◆ Use knowledge of Neuropsychology in the development of diverse intervention programs in all areas of school development
- ◆ Apply the data extracted from the analysis of neurology in clinical diagnosis, supported by specific knowledge of developmental neuropsychology.
 - ◆ Put into practice the different forms of intervention in the educational area based on the data extracted from the analysis of brain functionality, in the field of emotions and learning
 - ◆ Work with sensory difficulties in the school environment, from a neuropsychological approach based on the work, from the deep knowledge of visual and auditory functionality
 - ◆ Implement brain stimulation strategies in education through the development of motor skills and laterality
 - ◆ Devise, develop and analyze comprehensive research in the area of neuropsychology in the educational setting
 - ◆ Apply new strategies in cases of high abilities.
 - ◆ Be able to program taking into account multiple intelligences and the impulse of talent and creativity.
 - ◆ Develop efficient intervention programs for students with dyscalculia, dyslexia and hyperactivity.
 - ◆ Perform effective assessment, diagnosis and intervention of language difficulties

04

Course Management

For our master's degree to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record in the field of education. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.



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Our teachers will put their experience and teaching skills at your disposal to offer you a stimulating and creative program”

International Guest Director

Dr. Steven P. Woods is a leading neuropsychologist internationally recognized for his outstanding contributions to improving **clinical detection, prediction and treatment** of real-world health outcomes in **diverse neuropsychological populations**. He has forged an exceptional career path, which has led him to publish more than 300 articles and to serve on editorial boards in 5 major editorial boards in 5 major **Clinical Neuropsychology** journals.

His excellent scientific and clinical work focuses primarily on the ways in which cognition can hinder and support **daily activities, health and well-being** in adults with **chronic medical conditions**. Other areas of scientific relevance, for this expert, also include **health literacy, apathy, intra-individual variability** and **Internet navigation skills**. His research projects are funded by the **National Institute of Mental Health (NIMH)** and **National Institute on Drug Abuse (NIDA)**.

In this regard, Dr. Woods' research approach examines the application of **theoretical models** to elucidate the role of **neurocognitive deficits** (e.g., memory) in **everyday functioning** and **health literacy** in people affected by **HIV and aging**. Therefore, his interest focuses, for example, on how people's ability to "*Remember to Remember*", known as **prospective memory**, influences health-related **behaviors**, such as **medication adherence**. This multidisciplinary approach is reflected in his groundbreaking research, available on *Google Scholar* and *ResearchGate*.

He also founded the **Clinical Neuropsychology Service** at **Thomas Street Health Center**, where he holds a senior position as **Director**. Here, Dr. Woods provides **Clinical Neuropsychology** services to people affected by **HIV**, providing critical support to communities in need and reaffirming the communities in need and reaffirming his commitment to the practical application of his research to improve lives.



Dr. Woods, Steven P.

- ♦ Director of the Neuropsychology Service at the Thomas Street Health Center, Houston, United States
- ♦ Founder and Director of the Clinical Neuropsychology Service at the Thomas Street Health Center
- ♦ Collaborator in the Department of Psychology, University of Houston
- ♦ Associate Editor at *Neuropsychology* and *The Clinical Neuropsychologist*
- ♦ Ph.D. in Clinical Psychology, with a specialization in Neuropsychology, Norfolk State University
- ♦ B.A. in Psychology from Portland State University.
- ♦ Member of: National Academy of Neuropsychology and American Psychological Association (Division 40, Society for Clinical Neuropsychology).

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Thanks to TECH you will be able to learn with the best professionals in the world"

Management



Dr. Martínez Lorca, Alberto

- ♦ Area Specialist in Nuclear Medicine at the University Hospital La Paz
- ♦ Physician in the Nuclear Medicine Department at the Ramón y Cajal University Hospital
- ♦ Specialist in Nuclear Medicine at the Rey Juan Carlos University Hospital
- ♦ Doctor of Medicine
- ♦ Research Expert in the Area of Cancer and Hormone Receptors
- ♦ Medical Education Manager
- ♦ Master's Degree in Time-Limited Psychotherapy and Health Psychology
- ♦ Coaching in Emotionally Conscious Bonding
- ♦ Director of Neurological Studies at CEP. Madrid
- ♦ Specialist in Neurology of Dreams and their Disorders
- ♦ Disseminator for the children's population at the Teddy Bear Hospital



Ms. Sánchez Padrón, Nuria Ester

- ♦ General Health Psychologist
- ♦ Teacher of Educational Reinforcement at Radio ECCA
- ♦ Degree in Psychology from La Laguna University
- ♦ Master's Degree in General Health Psychology from the University of La Rioja
- ♦ Specialist in Emergency Psychological Care of the Red Cross
- ♦ Specialist in Psychological Care in Penitentiary Institutions

Coordinator



Dr. Aguado Romo, Roberto

- ◆ President of the European Institute of Time-Limited Psychotherapy
- ◆ Psychologist in private practice
- ◆ Researcher in Time Limited Psychotherapy
- ◆ Guidance team coordinator for many educational centers
- ◆ Author of several books on Psychology
- ◆ Communicator and expert in Psychology in the media.
- ◆ University courses and studies teacher.
- ◆ Master's Degree in Clinical and Health Psychology
- ◆ Specialist in Clinical Psychology
- ◆ Selective Dissociation Targeting Specialist

Professors

Dr. Fernandez, Angel

- ◆ Director of the Evaluation and Psychotherapy Center of Madrid
- ◆ European specialist psychologist in Psychotherapy from the EFPA
- ◆ Health Psychologist
- ◆ Master's Degree in Clinical and Health Psychology
- ◆ Tutor in charge of the Psychodiagnosis and Psychological Intervention area of the CEP
- ◆ Author of the TEN technique
- ◆ Head of studies on the Professional Master's Degree in Time-Limited Psychotherapy and Health Psychology
- ◆ Specialist in Clinical Hypnosis and Relaxation

Dr. González Agüero, Mónica

- ◆ Psychologist in charge of the Department of Child and Adolescent Psychology at Quirónsalud Marbella Hospital and Avatar Psychologists
- ◆ Psychologist and Teacher at the European Institute of Limited Time Psychotherapies (IEPTL)
- ◆ Degree in Psychology from the National University of Distance Education (UNED)



Dr. Kaiser Ramos, Carlos

- ◆ Specialist in Otorhinolaryngology and Cervical and Facial Pathology
- ◆ Head of the Otolaryngology department at Segovia General Hospital
- ◆ Member of the Royal Academy of Medicine of Salamanca
- ◆ Master's Degree in Time-Limited Psychotherapy and Health Psychology
- ◆ Expert in Psychosomatic Medicine

Dr. Martínez-Lorca, Manuela

- ◆ Health Psychologist.
- ◆ Teacher in the Department of Psychology at the University of Castilla La Mancha
- ◆ Master's Degree in Time-Limited Psychotherapy and Health Psychology by the European Institute of Time-Limited Psychotherapies
- ◆ Specialist in Clinical Hypnosis and Relaxation
- ◆ Degree in Psychology
- ◆ Doctor of Medicine

Dr. Roldan, Lucía

- ◆ Health Psychologist.
- ◆ Cognitive-Behavioral Intervention Specialist
- ◆ Master's Degree in Time-Limited Psychotherapy and Health Psychology
- ◆ Expert in Energy Therapy Intervention

05

Structure and Content

The contents of this program have been developed by the different teachers of this course, with a clear purpose: to ensure that our students acquire each and every one of the skills necessary to become true experts in this field. The content of this course enables you to learn all aspects of the different disciplines involved in this field. A complete and well-structured program that will take you to the highest standards of quality and success.



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Through a very well segmented approach, you will be able to access the most advanced knowledge in Clinical Neuropsychology and Neuroeducation of the moment"

Module 1. Basis of Neurosciences

- 1.1. The Nervous System and Neurons
 - 1.1.1. Introduction
 - 1.1.2. Developments and Latest Approaches
- 1.2. Basic Anatomy of Learning-Related Structures
 - 1.2.1. Physiology of Learning
- 1.3. Psychological Processes Related to Learning.
 - 1.3.1. Emotions and Learning
 - 1.3.2. Emotional Approaches
- 1.4. The Main Brain Structures Related to Motor Skills
 - 1.4.1. Brain and Motor Development
 - 1.4.2. Laterality and Development
- 1.5. The Plastic Brain and Neuroplasticity
 - 1.5.1. Definition of Plasticity
 - 1.5.2. Neuroplasticity and Education
- 1.6. Epigenetics
 - 1.6.1. Definition and Origins
- 1.7. Effects of the Environment on Brain Development
 - 1.7.1. Current Theories
 - 1.7.2. The Influence of the Environment on Child Development
- 1.8. Changes in the Infant's Brain
 - 1.8.1. Brain Development in Infancy
 - 1.8.2. Features
- 1.9. Evolution of the Adolescent Brain
 - 1.9.1. Brain Development in Adolescence
 - 1.9.2. Features
- 1.10. The Adult Brain
 - 1.10.1. Characteristics of the Adult Brain
 - 1.10.2. The Adult Brain and Learning

Module 2. Developmental Neuropsychology

- 2.1. Neuroscience
- 2.2. The Brain: Structure and Function
- 2.3. Neuroscience and Learning
- 2.4. Multiple Intelligences
- 2.5. Neuroscience - Education
- 2.6. Neurosciences in the Classroom
- 2.7. Playing and New Technologies
- 2.8. Body and Brain
- 2.9. Neuroscience for Preventing School Failure
- 2.10. Reason and Emotion

Module 3. Principles of Neuroanatomy

- 3.1. Classification of Nerve Fibers (Erlanger and Gasser)
 - 3.1.1. Alpha
 - 3.1.2. Beta
 - 3.1.3. Gamma
 - 3.1.4. Delta
 - 3.1.5. Sympathetic
 - 3.1.6. Preganglionic
 - 3.1.7. Mechanoreceptors
 - 3.1.8. Sympathetic Nociceptors
 - 3.1.9. Preganglionic
- 3.2. Vegetative Nervous System
- 3.3. Spinal Cord
- 3.4. Spinal Nerves
- 3.5. Afferent and Efferent Communication
- 3.6. Gray Matter
- 3.7. White Matter

- 3.8. Brainstem
 - 3.8.1. Midbrain
 - 3.8.2. Varolio Bridge
 - 3.8.3. Medulla Oblongata
 - 3.8.4. Cerebellum
- 3.9. Limbic System
 - 3.9.1. Tonsils
 - 3.9.2. Hippocampus
 - 3.9.3. Hypothalamus
 - 3.9.4. Cingulum
 - 3.9.5. Sensory Thalamus
 - 3.9.6. Base Cores
 - 3.9.7. Periaqueductal Gray Region
 - 3.9.8. Pituitary
 - 3.9.9. Nucleus Accumbens
- 3.10. Cerebral Cortex (Theory of Cerebral Evolution, Carter 2002)
 - 3.10.1. Parietal Cortex
 - 3.10.2. Frontal Lobes (6m)
 - 3.10.3. Limbic System (12 m)
 - 3.10.4. Language Areas: 1st Wernicke, 2nd Broca. (18 m)
- 3.11. Frontal Orbital Lobe
- 3.12. Functional Relationships of the NS with Other Organs and Systems
- 3.13. Motorneurone Transmission
- 3.14. Sensoperception
- 3.15. Neuroendocrinology (Hypothalamus-Endocrine System Relationship)
 - 3.15.1. Temperature Regulation
 - 3.15.2. Blood Pressure Regulation
 - 3.15.3. Food Ingestion Regulation
 - 3.15.4. Reproductive Function Regulation
- 3.16. Neuroimmunology (Relationship between the Nervous System and Immune System)
- 3.17. Map Relating Emotion to Neuroanatomical Structures

Module 4. Introduction to Neuropsychology

- 4.1. Introduction to Neuropsychology
 - 4.1.1. Basis and Origins of Neuropsychology
 - 4.1.2. First Approaches to the Discipline
- 4.2. First Approaches to the Neuropsychology
 - 4.2.1. First Works Within Neuropsychology
 - 4.2.2. Most Relevant Authors and Works
- 4.3. Ontogeny and Phylogeny of the CNS
 - 4.3.1. Concept of Ontogeny and Phylogeny
 - 4.3.2. Ontogeny and Phylogeny Within the CNS
- 4.4. Cellular and Molecular Neurobiology
 - 4.4.1. Introduction to Neurobiology
 - 4.4.2. Cellular and Molecular Neurobiology
- 4.5. Neurobiology of Systems
 - 4.5.1. Concepts of Systems
 - 4.5.2. Structures and Development
- 4.6. Embryology of the Nervous System
 - 4.6.1. Principles of Embryology of the Nervous System
 - 4.6.2. Phases of CNS Embryology
- 4.7. Introduction to Structural Anatomy CNS
 - 4.7.1. Introduction to Structural Anatomy
 - 4.7.2. Structural Development
- 4.8. Introduction to Functional Anatomy
 - 4.8.1. What is Function Anatomy?
 - 4.8.2. Most Important Functions
- 4.9. Neuroimaging Techniques
 - 4.9.1. Concept of Neuroimaging
 - 4.9.2. Most Commonly Used Techniques
 - 4.9.3. Advantages and Disadvantages

Module 5. Functional Neuroanatomy

- 5.1. Frontal Lobes
 - 5.1.1. Introduction to the Frontal Lobe
 - 5.1.2. Main Features
 - 5.1.3. Bases of their Functioning
- 5.2. Neuropsychology of the Dorsolateral Prefrontal Cortex
 - 5.2.1. Introduction to the Dorsolateral Prefrontal Cortex
 - 5.2.2. Main Features
 - 5.2.3. Bases of their Functioning
- 5.3. Neuropsychology of the Orbitofrontal Cortex
 - 5.3.1. Introduction to the Orbitofrontal Cortex
 - 5.3.2. Main Features
 - 5.3.3. Bases of their Functioning
- 5.4. Neuropsychology of the Medial Prefrontal Cortex
 - 5.4.1. Introduction to the Dorsolateral Prefrontal Cortex
 - 5.4.2. Main Features
 - 5.4.3. Bases of their Functioning
- 5.5. Motor Cortex
 - 5.5.1. Introduction to the Motor Cortex
 - 5.5.2. Main Features
 - 5.5.3. Bases of their Functioning
- 5.6. Temporal Lobe
 - 5.6.1. Introduction to the Temporal Lobe Cortex
 - 5.6.2. Main Features
 - 5.6.3. Bases of their Functioning
- 5.7. Parietal Lobe
 - 5.7.1. Introduction to the Parietal Lobe Cortex
 - 5.7.2. Main Features
 - 5.7.3. Bases of their Functioning
- 5.8. Occipital Lobe
 - 5.8.1. Introduction to the Occipital Lobe Cortex
 - 5.8.2. Main Features
 - 5.8.3. Bases of their Functioning

- 5.9. Cerebral Asymmetry
 - 5.9.1. Concept of Brain Asymmetry
 - 5.9.2. Characteristics and Functioning

Module 6. Cognitive Functions

- 6.1. Neurological Principles of Attention
 - 6.1.1. Introduction to the Concept of Attention
 - 6.1.2. Neurobiological Principles and Foundations of Attention
- 6.2. Neurobiological Principles of Memory
 - 6.2.1. Introduction to the Concept of Memory
 - 6.2.2. Neurobiological Principles and Foundations of Memory
- 6.3. Neurological Principles of Language
 - 6.3.1. Introduction to the Concept of Language
 - 6.3.2. Neurobiological Principles and Foundations of Language
- 6.4. Neurobiological Principles of Perception
 - 6.4.1. Introduction to the Concept of Perception
 - 6.4.2. Neurobiological Principles and Foundations of Perception
- 6.5. Visuospatial Neurobiological Principles
 - 6.5.1. Introduction to Visuospatial Functions
 - 6.5.2. Principles and Fundamentals of Visuospatial Functions
- 6.6. Neurobiological Principles of Executive Functions
 - 6.6.1. Introduction to Executive Functions
 - 6.6.2. Principles and Fundamentals of Executive Functions
- 6.7. Apraxias
 - 6.7.1. What are Praxis?
 - 6.7.2. Features and Types
- 6.8. Gnosis
 - 6.8.1. What are Praxis?
 - 6.8.2. Features and Types
- 6.9. Social Cognition
 - 6.9.1. Introduction to Social Cognition
 - 6.9.2. Characteristics and Theoretical Foundations

Module 7. Brain Injury

- 7.1. Neuropsychological and Behavior Disorders of Genetic Origin
 - 7.1.1. Introduction
 - 7.1.2. Genes, Chromosomes and Hereditary
 - 7.1.3. Genes and Behavior
- 7.2. Early Brain Injury Disorder
 - 7.2.1. Introduction
 - 7.2.2. The Brain in Early Childhood
 - 7.2.3. Pediatric Cerebral Palsy
 - 7.2.4. Psychosyndromes
 - 7.2.5. Learning Disorders
 - 7.2.6. Neurobiological Disorders that Affect Learning
- 7.3. Vascular Brain Disorders
 - 7.3.1. Introduction to Cerebrovascular Disorders
 - 7.3.2. Most Common Types
 - 7.3.3. Characteristics and Symptomology
- 7.4. Brain Tumors
 - 7.4.1. Introduction to Brain Tumors
 - 7.4.2. Most Common Types
 - 7.4.3. Characteristics and Symptomology
- 7.5. Cranioencephalic Traumas
 - 7.5.1. Introduction to Trauma
 - 7.5.2. Most Common Types
 - 7.5.3. Characteristics and Symptomology
- 7.6. Infections of the CNS
 - 7.6.1. Introduction the CNS Infections
 - 7.6.2. Most Common Types
 - 7.6.3. Characteristics and Symptomology
- 7.7. Epileptic Disorders
 - 7.7.1. Introduction to Epileptic Disorders
 - 7.7.2. Most Common Types
 - 7.7.3. Characteristics and Symptomology

- 7.8. Alterations in the Level of Consciousness
 - 7.8.1. Introduction to Altered Levels of Consciousness
 - 7.8.2. Most Common Types
 - 7.8.3. Characteristics and Symptomology
- 7.9. Acquired Brain Injury
 - 7.9.1. Concept of Acquired Brain Injury
 - 7.9.2. Most Common Types
 - 7.9.3. Characteristics and Symptomology
- 7.10. Disorders Related to Pathological Ageing
 - 7.10.1. Introduction
 - 7.10.2. Psychological Disorders Related to Pathological Aging

Module 8. Aphasias, Agraphias and Alexias

- 8.1. Broca's Aphasia
 - 8.1.1. Basis and Origin of Broca's Aphasia
 - 8.1.2. Characteristics and Symptomology
 - 8.1.3. Assessment and Diagnosis
- 8.2. Wernicke's Aphasia
 - 8.2.1. Basis and Origin of Wernicke's Aphasia
 - 8.2.2. Characteristics and Symptomology
 - 8.2.3. Assessment and Diagnosis
- 8.3. Conduction Aphasia
 - 8.3.1. Basis and Origin of Conduction Aphasia
 - 8.3.2. Characteristics and Symptomology
 - 8.3.3. Assessment and Diagnosis
- 8.4. Global Aphasia
 - 8.4.1. Basis and Origin of Global Aphasia
 - 8.4.2. Characteristics and Symptomology
 - 8.4.3. Assessment and Diagnosis
- 8.5. Sensory Transcortical Aphasia
 - 8.5.1. Basis and Origin of Broca's Aphasia
 - 8.5.2. Characteristics and Symptomology
 - 8.5.3. Assessment and Diagnosis

- 8.6. Motor Transcortical Aphasia
 - 8.6.1. Basis and Origin of Motor Transcortical Aphasia
 - 8.6.2. Characteristics and Symptomology
 - 8.6.3. Assessment and Diagnosis
- 8.7. Mixed Transcortical Aphasia
 - 8.7.1. Basis and Origin of Mixed Transcortical Aphasia
 - 8.7.2. Characteristics and Symptomology
 - 8.7.3. Assessment and Diagnosis
- 8.8. Anomic Aphasia
 - 8.8.1. Principles and Origin of Anomic Aphasia
 - 8.8.2. Characteristics and Symptomology
 - 8.8.3. Assessment and Diagnosis
- 8.9. Agraphias
 - 8.9.1. Principles and Origin of Agraphias
 - 8.9.2. Characteristics and Symptomology
 - 8.9.3. Assessment and Diagnosis
- 8.10. Alexias
 - 8.10.1. Principles and Origin of Alexias
 - 8.10.2. Characteristics and Symptomology
 - 8.10.3. Assessment and Diagnosis

Module 9. Neurodegenerative Diseases

- 9.1: Normal Aging
 - 9.1.1. Basic Cognitive Processes in Normal Aging
 - 9.1.2. Superior Cognitive Processes in Normal Aging
 - 9.1.3. Attention and Memory in Elderly People with Normal Aging
- 9.2. Cognitive Reserve and its Importance in Aging
 - 9.2.1. Cognitive Reserve: Definition and Basic Concepts
 - 9.2.2. Functionality of Cognitive Reserve
 - 9.2.3. Influencing Variables in Cognitive Reserve
 - 9.2.4. Interventions Based on Improving Cognitive Reserve in the Elderly

- 9.3. Multiple Sclerosis
 - 9.3.1. Concepts and Biological Foundations of Multiple Sclerosis
 - 9.3.2. Characteristics and Symptomology
 - 9.3.3. Patient Profile
 - 9.3.4. Assessment and Diagnosis
- 9.4. Amyotrophic Lateral Sclerosis
 - 9.4.1. Concepts and Biological Foundations of Amyotrophic Lateral Sclerosis (ALS)
 - 9.4.2. Characteristics and Symptomology
 - 9.4.3. Patient Profile
 - 9.4.4. Assessment and Diagnosis
- 9.5. Parkinson's Disease
 - 9.5.1. Concepts and Biological Foundations of Parkinson's Disease
 - 9.5.2. Characteristics and Symptomology
 - 9.5.3. Patient Profile
 - 9.5.4. Assessment and Diagnosis
- 9.6. Huntington's Disease
 - 9.6.1. Concepts and Biological Foundations of Huntington's Disease
 - 9.6.2. Characteristics and Symptomology
 - 9.6.3. Patient Profile
 - 9.6.4. Assessment and Diagnosis
- 9.7. Dementia of the Alzheimer Type
 - 9.7.1. Concepts and Biological Foundations of Dementia of the Alzheimer Type
 - 9.7.2. Characteristics and Symptomology
 - 9.7.3. Patient Profile
 - 9.7.4. Assessment and Diagnosis
- 9.8. Pick's Dementia
 - 9.8.1. Concepts and Biological Foundations of Pick's Dementia
 - 9.8.2. Characteristics and Symptomology
 - 9.8.3. Patient Profile
 - 9.8.4. Assessment and Diagnosis

- 9.9. Lewy Body Dementia
 - 9.9.1. Concepts and Biological Foundations of Lewy Body Dementia
 - 9.9.2. Characteristics and Symptomology
 - 9.9.3. Patient Profile
 - 9.9.4. Assessment and Diagnosis
- 9.10. Vascular Dementia
 - 9.10.1. Concepts and Biological Foundations of Vascular Dementia
 - 9.10.2. Characteristics and Symptomology
 - 9.10.3. Patient Profile
 - 9.10.4. Assessment and Diagnosis

Module 10. Neuroeducation

- 10.1. Introduction to Neuroeducation.
- 10.2. Main Neuromyths
- 10.3. Attention
- 10.4. Emotion
- 10.5. Motivation
- 10.6. The Learning Process
- 10.7. Memory
- 10.8. Stimulation and Early Interventions
- 10.9. Importance of Creativity in Neuroeducation
- 10.10. Methodologies that allow the Transformation of Education in Neuroeducation

Module 11. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- 11.1. Vision: Functioning and Neuropsychological Bases
 - 11.1.1. Introduction
 - 11.1.2. Development of the Visual System at Birth
 - 11.1.3. Risk Factors
 - 11.1.4. Development of Other Sensory Systems During Infancy
 - 11.1.5. Influence of Vision on the Visuomotor System and its Development
 - 11.1.6. Normal and Binocular Vision
 - 11.1.7. Anatomy of Human Eyes

- 11.1.8. Eye Functions
- 11.1.9. Other Functions
- 11.1.10. Visual Pathways to the Cerebral Cortex
- 11.1.11. Elements that Favor Visual Perception
- 11.1.12. Vision Diseases and Alterations
- 11.1.13. Most Common Eye Disorders or Diseases: Classroom Interventions
- 11.1.14. Computer Vision Syndrome (CVS)
- 11.1.15. Attitudinal Observation of the Student
- 11.1.16. Summary
- 11.1.16. Bibliographical References
- 11.2. Visual Perception, Assessment and Intervention Programs
 - 11.2.1. Introduction
 - 11.2.2. Human Development: Development of the Sensory Systems
 - 11.2.3. Sensory Perception
 - 11.2.4. Neurodevelopment
 - 11.2.5. Description of the Perceptual Process
 - 11.2.6. Color Perception
 - 11.2.7. Perception and Visual Skills
 - 11.2.8. Evaluation of Visual Perception
 - 11.2.9. Intervention for the Improvement of Visual Perception
 - 11.2.10. Summary
 - 11.2.11. Bibliographical References
- 11.3. Tracking Eye Movements
 - 11.3.1. Introduction
 - 11.3.2. Eye Movements
 - 11.3.3. Tracking Eye Movements
 - 11.3.4. Ocular Motility Recording and Assessment
 - 11.3.5. Ocular Motility-Related Disorders
 - 11.3.6. The Visual System and Reading
 - 11.3.7. Development of Skills in Learning to Read
 - 11.3.8. Improvement and Training Programs and Activities
 - 11.3.9. Summary
 - 11.3.10. Bibliographical References
- 11.4. Saccadic Movements and Their Implication in Reading
 - 11.4.1. Introduction
 - 11.4.2. Models of the Reading Process
 - 11.4.3. Saccadic Movements and Their Relation to Reading
 - 11.4.4. How Saccadic Movements are Assessed
 - 11.4.5. The Reading Process at the Visual Level
 - 11.4.6. Visual Memory in the Reading Process
 - 11.4.7. Investigations to Study the Relationship Between Visual Memory and Reading
 - 11.4.8. Reading Difficulties
 - 11.4.9. Specialized Teachers
 - 11.4.10. Social Educators
 - 11.4.11. Summary
 - 11.4.12. Bibliographical References
- 11.5. Visual Accommodation and its Relation to Posture in the Classroom
 - 11.5.1. Introduction
 - 11.5.2. Mechanisms that Allow for Accommodation or Focus
 - 11.5.3. How is Visual Accommodation Assessed?
 - 11.5.4. Body Posture in the Classroom
 - 11.5.5. Visual Accommodation Training Programs
 - 11.5.6. Aids for Visually Impaired Students
 - 11.5.7. Summary
 - 11.5.8. Bibliographical References
- 11.6. Structure and Function of the Ear
 - 11.6.1. Introduction
 - 11.6.2. The World of Sound
 - 11.6.3. Sound and its Propagation
 - 11.6.4. The Auditory Receptors
 - 11.6.5. Ear Structure
 - 11.6.6. Development of the Hearing System at Birth
 - 11.6.7. Development of Sensory Systems during Infancy
 - 11.6.8. Influence of the Ear on Balance Development
 - 11.6.9. Ear Diseases
 - 11.6.10. Summary

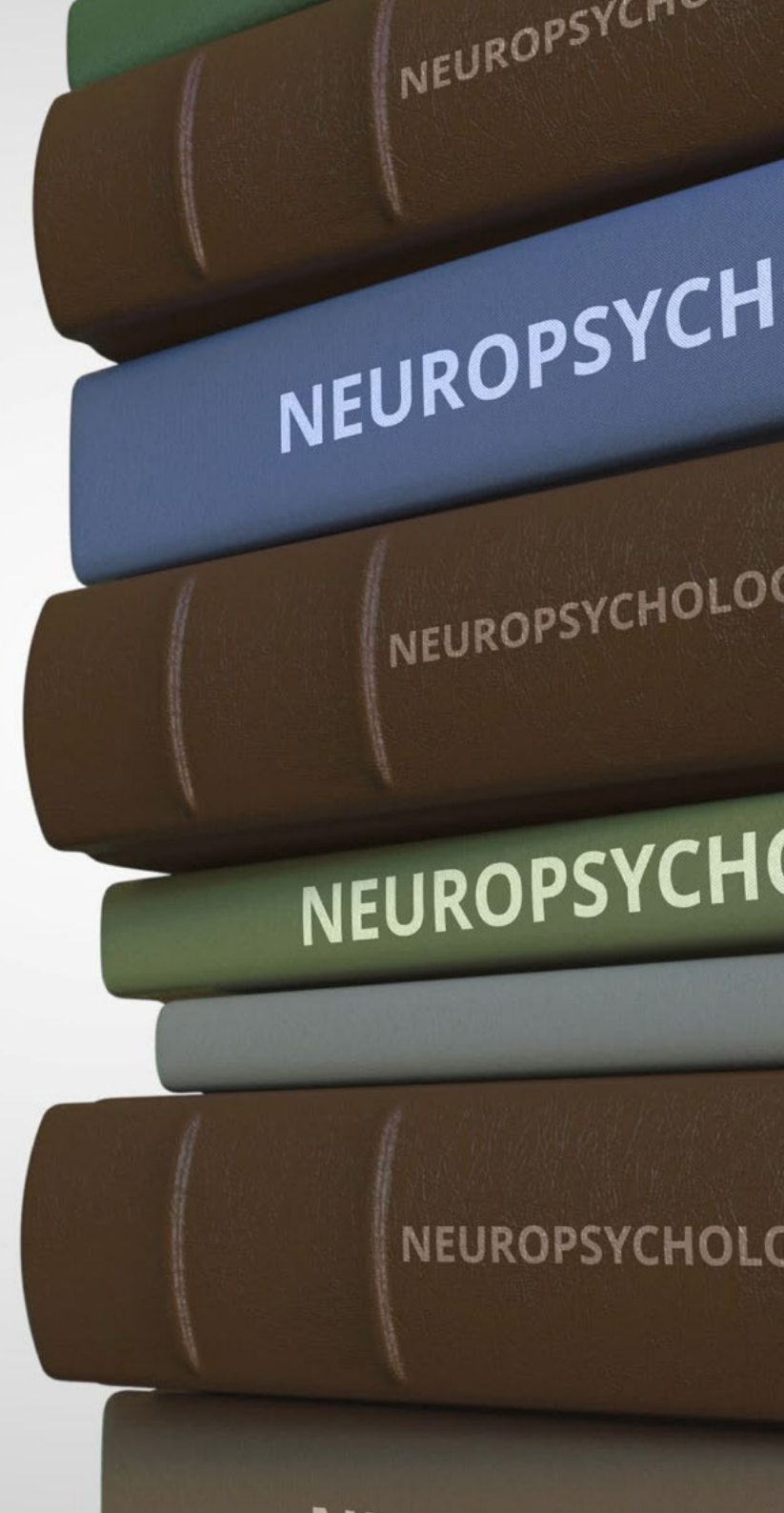
- 11.6.11. Bibliographical References
- 11.7. Auditory Perception
 - 11.7.1. Introduction
 - 11.7.2. Guidelines for Detecting Auditory Perception Problems
 - 11.7.3. The Perceptive Process
 - 11.7.4. Role of the Auditory Pathways in Perceptual Processes
 - 11.7.5. Children with Impaired Auditory Perception
 - 11.7.6. Evaluation Tests
 - 11.7.7. Summary
 - 11.7.8. Bibliographical References
- 11.8. Evaluation of Hearing and its Alterations
 - 11.8.1. Introduction
 - 11.8.2. Evaluation of the External Auditory Canal
 - 11.8.3. Otoscopy
 - 11.8.4. Air Audiometry
 - 11.8.5. Bone Conduction Hearing
 - 11.8.6. Curve of the Pain Threshold
 - 11.8.7. Tone Audiometry, Vocal Audiometry and Acoustic Audiometry
 - 11.8.8. Hearing Impairment: Degrees and Types of Hearing Loss
 - 11.8.9. Causes of Hearing Loss
 - 11.8.10. Psychobiological Aspects of Hearing Impairment
 - 11.8.11. Summary
 - 11.8.12. Bibliographical References
- 11.9. Hearing and Learning Development
 - 11.9.1. Introduction
 - 11.9.2. Development of the Human Ear
 - 11.9.3. Programs, Activities and Games for Auditory Development in Children
 - 11.9.4. Berard Method
 - 11.9.5. Tomatis Method
 - 11.9.6. Visual and Hearing Health
 - 11.9.7. Adaptations of Curricular Elements
 - 11.9.8. Summary
 - 11.9.10. Bibliographical References

- 11.10. Vision and Hearing Processes Involved in Reading
 - 11.10.1. Introduction
 - 11.10.2. Tracking Eye Movements
 - 11.10.3. The Visual System and Reading
 - 11.10.4. Dyslexia
 - 11.10.5. Color-Based Therapies for Dyslexia
 - 11.10.6. Visual Impairment Aids
 - 11.10.7. Summary
 - 11.10.8. Bibliographical References
- 11.11. Relationship Between Vision and Hearing in Language
 - 11.11.1. Introduction
 - 11.11.2. Relationship Between Vision and Hearing
 - 11.11.3. Verbal-Auditory and Visual Information Processing
 - 11.11.4. Intervention Programs for Hearing Disorders
 - 11.11.5. Guidelines for Teachers
 - 11.11.6. Summary
 - 11.11.7. Bibliographical References

Module 12. Motricity, Laterality and Writing

- 12.1. Neurodevelopment and Learning
 - 12.1.1. Introduction
 - 12.1.2. Perceptual Development
 - 12.1.3. Neuropsychological Bases of Motor Development
 - 12.1.4. Development of Laterality
 - 12.1.5. Interhemispheric Communication through the Corpus Callosum
 - 12.1.6. Ambidextrousness
 - 12.1.7. Summary
 - 12.1.8. Bibliographical References
- 12.2. Psychomotor Development
 - 12.2.1. Introduction
 - 12.2.2. Gross Psychomotor Development
 - 12.2.3. General Dynamic Coordination: Basic Skills
 - 12.2.4. Fine Motor Skills and Their Relationship with Writing

- 12.2.5. Assessment of Psychomotor Development
- 12.2.6. Summary
- 12.2.7. Bibliographical References
- 12.3. Neuropsychology of Motor Development
 - 12.3.1. Introduction
 - 12.3.2. Relationship between Motor and Psychism
 - 12.3.3. Disorders of Motor Development
 - 12.3.4. Disorders of the Acquisition of Coordination
 - 12.3.5. Vestibular System Disorders
 - 12.3.6. Handwriting
 - 12.3.7. Summary
 - 12.3.8. Bibliographical References
- 12.4. Introduction to Laterality Development
 - 12.4.1. Introduction
 - 12.4.2. Laterality Tests
 - 12.4.3. Observation Guidelines for Teachers
 - 12.4.4. Cross Laterality
 - 12.4.5. Types of Cross-Lateralization
 - 12.4.6. Relationship between Dyslexia and Laterality
 - 12.4.7. Relationship between Laterality and Attention, Memory and Hyperactivity Problems
 - 12.4.8. Summary
 - 12.4.9. Bibliographical References
- 12.5. Development of Laterality at Different Ages
 - 12.5.1. Introduction
 - 12.5.2. Definition of Laterality
 - 12.5.3. Types of Laterality
 - 12.5.4. The Corpus Callosum
 - 12.5.5. The Cerebral Hemispheres
 - 12.5.6. Development of the Prelateral, Contralateral, and Lateral Stages
 - 12.5.7. Summary
 - 12.5.8. Bibliographical References



- 12.6. Motor Disorders and Related Learning Difficulties
 - 12.6.1. Introduction
 - 12.6.2. Motor Disorders
 - 12.6.3. Learning Difficulties
 - 12.6.4. Summary
 - 12.6.5. Bibliographical References
 - 12.7. Writing Acquisition and Process
 - 12.7.1. Introduction
 - 12.7.2. Learning to Read
 - 12.7.3. Comprehension Problems that Students May Develop
 - 12.7.4. Evolutionary Development of Writing
 - 12.7.5. History of Writing
 - 12.7.6. Neuropsychological Basis of Writing
 - 12.7.7. Teaching of Writing Expression
 - 12.7.8. Methods of Teaching Writing
 - 12.7.9. Writing Workshops
 - 12.7.10. Summary
 - 12.7.11. Bibliographical References
 - 12.8. Dysgraphia
 - 12.8.1. Introduction
 - 12.8.2. Learning Styles
 - 12.8.3. Executive Functions Involved in Learning
 - 12.8.4. Definition of Dysgraphia and Types
 - 12.8.5. Common Indicators of Dysgraphia
 - 12.8.6. Classroom Aids for Students with Dysgraphia
 - 12.8.7. Individual Aids
 - 12.8.8. Summary
 - 12.8.9. Bibliographic References
 - 12.9. The Contribution of Laterality to Literacy Development
 - 12.9.1. Introduction
 - 12.9.2. Importance of Laterality in the Learning Process
 - 12.9.3. Laterality in the Reading and Writing Process
 - 12.9.4. Laterality and Learning Difficulties
 - 12.9.5. Summary
 - 12.9.6. Bibliographical References
 - 12.10. Role of the School Psychologist and Guidance Counselors for Prevention, Development and Learning Difficulties.
 - 12.10.1. Introduction
 - 12.10.2. The Guidance Department
 - 12.10.3. Intervention Programs
 - 12.10.4. Advances of Neuropsychology in Learning Difficulties
 - 12.10.5. Training of the Teaching Team
 - 12.10.6. Summary
 - 12.10.7. Bibliographical References
 - 12.11. Guidance to Parents
 - 12.11.1. How to Inform parents?
 - 12.11.2. Activities to Improve Academic Performance
 - 12.11.3. Activities to Improve Lateral Development
 - 12.11.4. Strategies for Problem Solving
 - 12.11.5. Summary
 - 12.11.6. Bibliographical References
 - 12.12. Psychomotor Assessment and Intervention
 - 12.12.1. Introduction
 - 12.12.2. Psychomotor Development
 - 12.12.3. Psychomotor Evaluation
 - 12.12.4. Psychomotor Intervention
 - 12.12.5. Summary
 - 12.12.6. Bibliographical References
- Module 13. Methodological Strategies and Learning Difficulties**
- 13.1. Techniques to Improve Self-Esteem
 - 13.1.1. Classification
 - 13.1.2. Description
 - 13.2. Behavior Modification
 - 13.2.1. Identification
 - 13.2.2. Approach
 - 13.3. Coping and Problem-Solving Strategies
 - 13.3.1. Classification
 - 13.3.2. Application

- 13.4. Social Skills
 - 13.4.1. Description of Shortcomings
 - 13.4.2. Intervention Models
- 13.5. Emotional Intelligence, Creativity and Emotional Education in the Classroom
 - 13.5.1. Emotional Intelligence and the Education of Emotions According to the Mayer and Salovey Model
 - 13.5.2. Other Emotional Intelligence Models and Emotional Transformation
 - 13.5.3. Socio-Emotional Skills and Creativity According to Level of Intelligence
 - 13.5.4. Concept of Emotional Quotient, Intelligence and Adaptation in Learning Difficulties
 - 13.5.5. Practical Classroom Resources to Prevent the Demotivation of Students with Learning Difficulties and the Management of Disruptive Behaviors from Emotions
 - 13.5.6. Standardized Tests to Assess Emotions
- 13.6. Learning Planning
 - 13.6.1. Application Resources
- 13.7. Study Techniques
 - 13.7.1. Description
 - 13.7.2. Applicable Developments
- 13.8. Learning Strategies
 - 13.8.1. Rehearsal Strategies
 - 13.8.2. Processing Strategies
 - 13.8.3. Organization Strategies
 - 13.8.4. Metacognitive Strategies
 - 13.8.5. Affective or Supportive Strategies
- 13.9. Motivation
 - 13.9.1. Contextualization
 - 13.9.2. Teaching Approaches
- 13.10. Family-Centered Intervention
 - 13.10.1. Understanding Learning Difficulties
 - 13.10.2. Acceptance of Reality
 - 13.10.3. Decision-Making in the Family Environment
 - 13.10.4. Behaviors within the Family
 - 13.10.5. Projects with the Family
 - 13.10.6. Emotional Intelligence. Managing Emotions
- 13.11. Inclusive Educational Intervention
 - 13.11.1. Center's Educational Project, Special Attention to Learning Needs
 - 13.11.2. Structural Adjustments
 - 13.11.3. Organizational Changes
 - 13.11.4. Plan of Attention to Diversity
 - 13.11.5. Teacher Training Plan
 - 13.11.6. Curricular Actions
 - 13.11.7. Organizing the Early Childhood Syllabus
 - 13.11.8. Organizing the Primary Education Syllabus
 - 13.11.9. Organizing the Secondary Education Syllabus
- 13.12. Neurolinguistic Programming (NLP) Applied to Learning Disabilities
 - 13.12.1. Justification and Objectives
 - 13.12.2. Basics of NLP
 - 13.12.2.1. Foundations of NLP
 - 13.12.2.2. The Assumptions and Premises of NLP
 - 13.12.2.3. Neurological Levels
 - 13.12.3. The Rules of the Mind
 - 13.12.4. Beliefs
 - 13.12.5. Different Ways of Looking at Reality
 - 13.12.6. States of Mind
 - 13.12.7. Shaping the Language
 - 13.12.8. Access to Unconscious Resources
- 13.13. Dynamic Learning in the Classroom
 - 13.13.1. Dynamic Learning According to Robert Dilts
 - 13.13.2. Activities According to Different Learning Styles
 - 13.13.3. Activities According to How Students Select Information
 - 13.13.4. Strategies to Develop the Visual System in the Classroom
 - 13.13.5. Strategies for Developing the Auditory System in the Classroom
 - 13.13.6. Strategies to Develop the Kinesthetic System in the Classroom
 - 13.13.7. Activities According to How Students Organize Information
 - 13.13.8. Left Hemisphere and Right Hemisphere Enhancing Activities
 - 13.13.8.1. Strategies for Working With the Whole Brain in the Classroom

- 13.13.9. Techniques for Working on Beliefs
- 13.13.10. Neuro-Linguistic Programming Techniques to Improve Students' Academic Performance
 - 13.13.10.1. Techniques for Reflecting on Our Perception of Reality
 - 13.13.10.1.1. Techniques to Develop Flexible Thinking
 - 13.13.10.1.2. Techniques to Eliminate Blockages or Limitations
 - 13.13.10.1.3. Techniques to Clarify Objectives
 - 13.13.10.2. Annexes With Tests, Records, Techniques, Situation Analysis, Evaluations and Follow-Ups
- 13.14. Cooperative Learning in Attention to Diversity
 - 13.14.1. Definition and Bases of Cooperative Learning
 - 13.14.2. Structure of Cooperative Learning
 - 13.14.3. Developed Skills and Capabilities
 - 13.14.4. Purposes of Cooperative Learning From a Multicultural Approach
 - 13.14.5. Application in Each of the Educational Stages
 - 13.14.5.1. Early Childhood Education
 - 13.14.5.1.1. Teamwork and Group Cohesion in Early Childhood Education
 - 13.14.5.1.1.1. Cooperative Techniques in Early Childhood Education
 - 13.14.5.2. Primary Education
 - 13.14.5.2.1. Didactics and Experiences in Primary Education Simple Structures
 - 13.14.5.2.2. Primary Research and Projects
 - 13.14.5.3. High School
 - 13.14.5.3.1. Importance of Roles in Secondary Education
 - 13.14.5.3.2. Evaluation of Cooperative Experiences in Secondary Schools
 - 13.14.6. Design of Activities and Group Dynamics
 - 13.14.7. The Role of the Teacher as Facilitator and Guide
 - 13.14.8. Assessment of Cooperative Learning

- 13.15. New Technologies Applied
 - 13.15.1. Diverse Approaches and Perspectives
 - 13.15.1.1. Information Communication and Technology ICT
 - 13.15.1.2. Technology for Learning and Knowledge CAT
 - 13.15.1.3. Technologies of Empowerment and Participation TEP
 - 13.15.2. Impact of New Technologies in Education
 - 13.15.2.1. Digital Skills in Students
 - 13.15.2.2. Digital Skills in Teachers
 - 13.15.2.3. The Role of Families and the Regulation of Use
 - 13.15.3. Educating With the Use of New Technologies
 - 13.15.3.1. Digital Educational Content
 - 13.15.3.2. Tools
 - 13.15.3.3. Educational Platforms
 - 13.15.4. The Transformation of Education with New Teaching Methods

Module 14. Multiple Intelligences, Creativity, Talent and High-Capacity Individuals

- 14.1. Theory of Multiple Intelligences
 - 14.1.1. Introduction
 - 14.1.2. Background
 - 14.1.3. Conceptualization
 - 14.1.4. Validation
 - 14.1.5. Premises and Basic Principles of Theories
 - 14.1.6. Neuropsychological and Cognitive Science
 - 14.1.7. Classification of the Theories of Multiple Intelligences
 - 14.1.8. Summary
 - 14.1.9. Bibliographical References
- 14.2. Types of Multiple Intelligences
 - 14.2.1. Introduction
 - 14.2.2. Types of Intelligence
 - 14.2.3. Summary
 - 14.2.4. Bibliographical References

- 14.3. Assessment of Multiple Intelligences
 - 14.3.1. Introduction
 - 14.3.2. Background
 - 14.3.3. Types of Assessments
 - 14.3.4. Aspects to Consider in the Assessment
 - 14.3.5. Summary
 - 14.3.6. Bibliographical References
- 14.4. Creativity
 - 14.4.1. Introduction
 - 14.4.2. Concepts and Theories of Creativity
 - 14.4.3. Approaches to the Study of Creativity
 - 14.4.4. Characteristics of Creative Thinking
 - 14.4.5. Types of Creativity
 - 14.4.6. Summary
 - 14.4.7. Bibliographical References
- 14.5. Neuropsychological Basis of Creativity
 - 14.5.1. Introduction
 - 14.5.2. Background
 - 14.5.3. Characteristics of Creative People
 - 14.5.4. Creative Products
 - 14.5.5. Neuropsychological Bases of Creativity
 - 14.5.6. Influence of the Environment and Context on Creativity
 - 14.5.7. Summary
 - 14.5.8. Bibliographical References
- 14.6. Creativity in the Educational Context
 - 14.6.1. Introduction
 - 14.6.2. Creativity in the Classroom
 - 14.6.3. Stages of the Creative Process
 - 14.6.4. How to Work on Creativity
 - 14.6.5. Connection Between Creativity and Thinking
 - 14.6.6. Modification in the Educational Context
 - 14.6.7. Summary
 - 14.6.8. Bibliographical References
- 14.7. Methodologies for Developing Creativity
 - 14.7.1. Introduction
 - 14.7.2. Programs for Developing Creativity
 - 14.7.3. Projects for Developing Creativity
 - 14.7.4. Promoting Creativity in the Family Context
 - 14.7.5. Summary
 - 14.7.6. Bibliographical References
- 14.8. Creativity Assessment and Guidance
 - 14.8.1. Introduction
 - 14.8.2. Considerations on Assessment
 - 14.8.3. Evaluation Tests
 - 14.8.4. Subjective Assessment Tests
 - 14.8.5. Guidance on Assessment
 - 14.8.6. Summary
 - 14.8.7. Bibliographical References
- 14.9. High Capacities and Talents
 - 14.9.1. Introduction
 - 14.9.2. Relationship Between Giftedness and High Capacities
 - 14.9.3. Connection Between Heredity and Environment
 - 14.9.4. Neuropsychological Foundation
 - 14.9.5. Models of Giftedness
 - 14.9.6. Summary
 - 14.9.7. Bibliographical References
- 14.10. Identification and Diagnosis of High Capacities
 - 14.10.1. Introduction
 - 14.10.2. Main Characteristics
 - 14.10.3. How to Identify Far High-Capacity Individuals
 - 14.10.4. Role the Involved Agents
 - 14.10.5. Assessment Tests and Instruments
 - 14.10.6. Intervention Programs
 - 14.10.7. Summary
 - 14.10.8. Bibliographical References

- 14.11. Problems and Difficulties
 - 14.11.1. Introduction
 - 14.11.2. Problems and Difficulties in the School Environment
 - 14.11.3. Myths and Beliefs
 - 14.11.4. Desynchronies
 - 14.11.5. Differential Diagnosis
 - 14.11.6. Differences Between Genders
 - 14.11.7. Educational Needs
 - 14.11.8. Summary
 - 14.11.9. Bibliographical References
- 14.12. Connection Between Multiple Intelligences, High Capacities, Talent and Creativity
 - 14.12.1. Introduction
 - 14.12.2. Connection Between Multiple Intelligences and Creativity
 - 14.12.3. Connection Between Multiple Intelligences, High Capacities and Talents
 - 14.12.4. Differences Between Talent and High Capacities
 - 14.12.5. Creativity, High Capacities and Talent
 - 14.12.6. Summary
 - 14.12.7. Bibliographical References
- 14.13. Guiding and Developing Multiple Intelligences
 - 14.13.1. Introduction
 - 14.13.2. Advising Teachers
 - 14.13.3. Multidimensional Student Development
 - 14.13.4. Curricular Enrichment
 - 14.13.5. Strategies at Different Educational Levels
 - 14.13.6. Summary
 - 14.13.7. Bibliographical References
- 14.14. Creativity for Problem-Solving
 - 14.14.1. Introduction
 - 14.14.2. Models of the Creative Process for Problem Solving
 - 14.14.3. Creative Project Development
 - 14.14.4. Summary
 - 14.14.5. Bibliographical References

- 14.15. Educational Process and Family Support
 - 14.15.1. Introduction
 - 14.15.2. Guidelines for Teachers
 - 14.15.3. Educational Response in Children
 - 14.15.4. Educational Response in Primary Education
 - 14.15.5. Educational Response in Secondary Education
 - 14.15.6. Coordination with Families
 - 14.15.7. Program Implementation
 - 14.15.8. Summary
 - 14.15.9. Bibliographical References

Module 15. Dyslexia, Dyscalculia and Hyperactivity

- 15.1. Conceptualization of Dyslexia
 - 15.1.1. Introduction
 - 15.1.2. Definition
 - 15.1.3. Neuropsychological Bases
 - 15.1.4. Features
 - 15.1.5. Subtypes
 - 15.1.6. Summary
 - 15.1.7. Bibliographical References
- 15.2. Neuropsychological Assessment of Dyslexia
 - 15.2.1. Introduction
 - 15.2.2. Diagnostic Criteria for Dyslexia
 - 15.2.3. How to Assess
 - 15.2.4. Interview with the Tutor
 - 15.2.5. Reading and Writing
 - 15.2.6. Neuropsychological Assessment
 - 15.2.7. Assessment of Other Related Aspects
 - 15.2.8. Summary
 - 15.2.9. Bibliographical References

- 15.3. Neuropsychological Intervention of Dyslexia
 - 15.3.1. Introduction
 - 15.3.2. Variables Involved
 - 15.3.2. Neuropsychological Field
 - 15.3.3. Intervention Programs
 - 15.3.4. Summary
 - 15.3.5. Bibliographical References
- 15.4. Conceptualization of Dyscalculia
 - 15.4.1. Introduction
 - 15.4.2. Definition of Dyscalculia
 - 15.4.3. Features
 - 15.4.4. Neurophysiological Basis
 - 15.4.5. Summary
 - 15.4.6. Bibliographical References
- 15.5. Neuropsychological Assessment of Dyscalculia
 - 15.5.1. Introduction
 - 15.5.2. Assessment Objectives
 - 15.5.3. How to Assess
 - 15.5.4. Report
 - 15.5.5. Diagnosis
 - 15.5.6. Summary
 - 15.5.7. Bibliographical References
- 15.6. Neuropsychological Interventions of Dyscalculia
 - 15.6.1. Introduction
 - 15.6.2. Variables Involved in the Treatment
 - 15.6.3. Neuropsychological Rehabilitation
 - 15.6.4. Intervention in Dyscalculia
 - 15.6.5. Summary
 - 15.6.6. Bibliographical References
- 15.7. Conceptualization of ADHD
 - 15.7.1. Introduction
 - 15.7.2. TDAH definition
 - 15.7.3. Neuropsychological Bases
 - 15.7.4. Characteristics of Children with ADHD
 - 15.7.5. Subtypes
 - 15.7.6. Summary
 - 15.7.7. Bibliographical References
- 15.8. Neuropsychological Assessment of ADHD
 - 15.8.1. Introduction
 - 15.8.2. Assessment Objectives
 - 15.8.3. How to Assess
 - 15.8.4. Report
 - 15.8.5. Diagnosis
 - 15.8.6. Summary
 - 15.8.7. Bibliographical References
- 15.9. Neuropsychological Interventions of ADHD
 - 15.9.1. Introduction
 - 15.9.2. Neuropsychological Field
 - 15.9.3. Treatment of ADHD
 - 15.9.4. Other Therapies
 - 15.9.5. Intervention Programs
 - 15.9.6. Summary
 - 15.9.7. Bibliographical References
- 15.10. Comorbidity in Neurodevelopmental Disorders
 - 15.10.1. Introduction
 - 15.10.2. Neurodevelopment Disorders
 - 15.10.3. Dyslexia and Dyscalculia
 - 15.10.4. Dyslexia and ADHD
 - 15.10.5. Dyscalculia and ADHD
 - 15.10.6. Summary
 - 15.10.7. Bibliographical References
- 15.11. Neurotechnology
 - 15.11.1. Introduction
 - 15.11.2. Applied to Dyslexia
 - 15.11.3. Applied to Dyscalculia
 - 15.11.4. Applied to ADHD
 - 15.11.5. Summary
 - 15.11.6. Bibliographical References

- 15.12. Guidance for Parents and Teachers
 - 15.12.1. Introduction
 - 15.12.2. Guidance on Dyslexia
 - 15.12.3. Guidance on Dyscalculia
 - 15.12.4. Guidance on ADHD
 - 15.12.5. Summary
 - 15.12.6. Bibliographical References

Module 16. Neurolinguistic Processes, Difficulties and Intervention Programs

- 16.1. Neurobiological Basis Involved in Language
 - 16.1.1. Introduction
 - 16.1.2. Language Definitions
 - 16.1.3. Historical Background
 - 16.1.4. Summary
 - 16.1.5. Bibliographical References
- 16.2. Language Development
 - 16.2.1. Introduction
 - 16.2.2. Appearance of Language
 - 16.2.3. Acquisition of Language
 - 16.2.4. Summary
 - 16.2.5. Bibliographical References
- 16.3. Neuropsychological Approaches to Language
 - 16.3.1. Introduction
 - 16.3.2. Brain Processes of Language
 - 16.3.3. Brain Areas Involved
 - 16.3.4. Neurolinguistic processes
 - 16.3.5. Brain Centers Involved in Comprehension
 - 16.3.6. Summary
 - 16.3.7. Bibliographical References
- 16.4. Neuropsychology of Language Comprehension
 - 16.4.1. Introduction
 - 16.4.2. Brain Areas Involved in Comprehension
 - 16.4.3. Sounds
 - 16.4.4. Syntactic Structures for Linguistic Comprehension
 - 16.4.5. Semantic Processes and Meaningful Learning
 - 16.4.6. Reading Comprehension
 - 16.4.7. Summary
 - 16.4.8. Bibliographical References
- 16.5. Communication Through Language
 - 16.5.1. Introduction
 - 16.5.2. Language as a Tool for Communication
 - 16.5.3. Evolution of Language
 - 16.5.4. Social Communication
 - 16.5.5. Summary
 - 16.5.6. Bibliographical References
- 16.6. Language Disorders
 - 16.6.1. Introduction
 - 16.6.2. Speech and Language Disorders
 - 16.6.3. Professionals Involved in the Treatment
 - 16.6.4. Classroom Implications
 - 16.6.5. Summary
 - 16.6.6. Bibliographical References
- 16.7. Aphasia
 - 16.7.1. Introduction
 - 16.7.2. Types of Aphasia
 - 16.7.3. Diagnosis
 - 16.7.4. Assessment
 - 16.7.5. Summary
 - 16.7.6. Bibliographical References

- 16.8. Language Stimulation
 - 16.8.1. Introduction
 - 16.8.2. Importance of Language Stimulation
 - 16.8.3. Phonetic-Phonological Stimulation
 - 16.8.4. Lexical-Semantic Stimulation
 - 16.8.5. Morphosyntactic Stimulation
 - 16.8.6. Pragmatic Stimulation
 - 16.8.7. Summary
 - 16.8.8. Bibliographical References
- 16.9. Reading and Writing Disorders
 - 16.9.1. Introduction
 - 16.9.2. Delayed Reading
 - 16.9.3. Dyslexia
 - 16.9.4. Dysorthographia
 - 16.9.5. Dysgraphia
 - 16.9.6. Dyslalia
 - 16.9.7. Treatment of Reading and Writing Disorders
 - 16.9.8. Summary
 - 16.9.9. Bibliographical References
- 16.10. Evaluation and Diagnosis of Language Difficulties
 - 16.10.1. Introduction
 - 16.10.2. Language Evaluation
 - 16.10.3. Language Assessment Procedures
 - 16.10.4. Psychological Tests for Assessing Language
 - 16.10.5. Summary
 - 16.10.6. Bibliographical References
- 16.11. Intervention in Language Disorders
 - 16.11.1. Introduction
 - 16.11.2. Implementation of Improvement Programs
 - 16.11.3. Improvement Programs
 - 16.11.4. Improvement Programs Using New Technologies
 - 16.11.5. Summary
 - 16.11.6. Bibliographical References

- 16.12. Incidence of Language Difficulties on Academic Performance
 - 16.12.1. Introduction
 - 16.12.2. Linguistic Processes
 - 16.12.3. Incidence of Language Disorders
 - 16.12.4. Relationship Between Hearing and Language
 - 16.12.5. Summary
 - 16.12.6. Bibliographical References
- 16.13. Guidance for Parents and Teachers
 - 16.13.1. Introduction
 - 16.13.2. Language Stimulation
 - 16.13.3. Reading Stimulation
 - 16.13.4. Summary
 - 16.13.5. Bibliographical References

Module 17. Memory Processes, Skills and ICTs

- 17.1. Conceptual Bases of Memory
 - 17.1.1. Introduction and Objectives
 - 17.1.2. Concept and Definition of Memory
 - 17.1.3. Basic Processes of Memory
 - 17.1.4. Initial Research on Memory
 - 17.1.5. Classification of Memory
 - 17.1.6. Memory During Development
 - 17.1.7. General Strategies to Stimulate Memory
 - 17.1.8. Bibliographical References
- 17.2. Sensory Memory
 - 17.2.1. Introduction and Objectives
 - 17.2.2. Concept and Definition
 - 17.2.3. Neurobiological Foundations of Sensory Memory
 - 17.2.4. Assessing Sensory Memory
 - 17.2.5. Intervention in Educational Contexts of Sensory Memory
 - 17.2.6. Family Activities for Students From Three to Five Years of Age
 - 17.2.7. Sensory Memory Intervention Case Study
 - 17.2.8. Bibliographical References

- 17.3. Short-Term Memory
 - 17.3.1. Introduction and Objectives
 - 17.3.2. Concept and Definition of Short-Term Memory and Working Memory
 - 17.3.3. Neurobiological Bases of Short-Term and Working Memory
 - 17.3.4. Assessment of Short-Term and Working Memory
 - 17.3.5. Intervention in Educational Contexts of Short-Term Memory
 - 17.3.6. Family Activities for Students From Six to Eleven Years of Age
 - 17.3.7. Working Memory Intervention Case Study
 - 17.3.8. Bibliographical References
- 17.4. Long-Term Memory
 - 17.4.1. Introduction and Objectives
 - 17.4.2. Concept and Definition
 - 17.4.3. Neurobiological Bases of Long-Term Memory
 - 17.4.4. Assessment of Long-Term Memory
 - 17.4.5. Intervention in Educational Contexts of Long-Term Memory
 - 17.4.6. Family Activities for Students From Twelve to Eighteen Years of Age
 - 17.4.7. Long-Term Memory Intervention Case Study
- 17.5. Memory Disorders
 - 17.5.1. Introduction and Objectives
 - 17.5.2. Memory and Emotion
 - 17.5.3. Forgetfulness Theories of Forgetfulness
 - 17.5.4. Memory Distortions
 - 17.5.5. Memory Alterations: Amnesias
 - 17.5.6. Childhood Amnesia
 - 17.5.7. Other Types of Memory Alteration
 - 17.5.8. Programs to Improve Memory
 - 17.5.9. Technological Programs to Improve Memory
 - 17.5.10. Bibliographical References
- 17.6. Thinking Skills
 - 17.6.1. Introduction and Objectives
 - 17.6.2. Developing Thinking from Childhood to the Adult Age
 - 17.6.3. Basic Thought Processes
 - 17.6.4. Thinking Skills
 - 17.6.5. Critical Thinking
 - 17.6.6. Characteristics of Digital Natives
 - 17.6.7. Bibliographical References
- 17.7. Neurobiology of Thinking
 - 17.7.1. Introduction and Objectives
 - 17.7.2. Neurobiological Foundations of Thinking
 - 17.7.3. Cognitive distortions
 - 17.7.4. Neuropsychological Assessment Instruments
 - 17.7.5. Bibliographical References
- 17.8. Cognitive Intervention
 - 17.8.1. Introduction and Objectives
 - 17.8.2. Learning Strategies
 - 17.8.3. Cognitive Stimulation Techniques in Educational Contexts
 - 17.8.4. Methods for Studying at Home
 - 17.8.5. Cognitive Stimulation Activities in the Family Environment
 - 17.8.6. Learning Strategy Intervention Case Study
 - 17.8.7. Bibliographical References
- 17.9. Cognitive Thought Theories
 - 17.9.1. Introduction and Objectives
 - 17.9.2. Significant Learning Theory
 - 17.9.3. Information Processing Theory
 - 17.9.4. Genetic Theory: Constructivism
 - 17.9.5. Sociocultural Theory: Socioconstructivism
 - 17.9.6. Theory of Connectivism
 - 17.9.7. Metacognition: Learning to Think
 - 17.9.8. Programs for the Acquisition of Thinking Skills
 - 17.9.9. Technological Programs for the Improvement of Thinking Skills
 - 17.9.10. Thinking Skill Intervention Case Study
 - 17.9.11. Bibliographical References

Module 18. Research Methodology I

- 18.1. Research Methodology
 - 18.1.1. Introduction
 - 18.1.2. The Importance of Research Methodology
 - 18.1.3. Scientific Knowledge
 - 18.1.4. Research Approaches
 - 18.1.5. Summary
 - 18.1.6. Bibliographical References
- 18.2. Choosing the Topic to Research
 - 18.2.1. Introduction
 - 18.2.2. The Issue of Research
 - 18.2.3. Defining the Problem
 - 18.2.4. Choice of the Research Question
 - 18.2.5. Research Objectives
 - 18.2.6. Variables: Types
 - 18.2.7. Summary
 - 18.2.8. Bibliographical References
- 18.3. Research Proposal
 - 18.3.1. Introduction
 - 18.3.2. Research Hypothesis
 - 18.3.3. Feasibility of the Research Project
 - 18.3.4. Introduction and Justification of the Research
 - 18.3.5. Summary
 - 18.3.6. Bibliographical References
- 18.4. Theoretical Framework
 - 18.4.1. Introduction
 - 18.4.2. Elaboration of the Theoretical Framework
 - 18.4.3. Resources Used
 - 18.4.4. APA Standards
 - 18.4.5. Summary
 - 18.4.6. Bibliographical References
- 18.5. Bibliography
 - 18.5.1. Introduction
 - 18.5.2. Importance of Bibliographic References
 - 18.5.3. How to Reference According to APA Standards
 - 18.5.4. Format of Annexes: Tables and Figures
 - 18.5.5. Bibliography Managers: What Are They and How to Use Them
 - 18.5.6. Summary
 - 18.5.7. Bibliographical References
- 18.6. Methodological Framework
 - 18.6.1. Introduction
 - 18.6.2. Roadmap
 - 18.6.3. Sections to be Included in the Methodological Framework
 - 18.6.4. The Population
 - 18.6.5. The Sample
 - 18.6.6. Variables
 - 18.6.7. Instruments
 - 18.6.8. Procedure
 - 18.6.9. Summary
 - 18.6.10. Bibliographical References
- 18.7. Research Designs
 - 18.7.1. Introduction
 - 18.7.2. Types of Designs
 - 18.7.3. Characteristics of the Designs Used in Psychology
 - 18.7.4. Research Designs Used in Education
 - 18.7.5. Research Designs Used in Education Neuropsychology
 - 18.7.6. Summary
 - 18.7.7. Bibliographical References
- 18.8. Quantitative Research
 - 18.8.1. Introduction
 - 18.8.2. Designing Randomized Groups
 - 18.8.3. Designing Randomized Groups with Blocks
 - 18.8.4. Other Designs used in Psychology

- 18.8.5. Statistical Techniques in Quantitative Research
- 18.8.6. Summary
- 18.8.7. Bibliographical References
- 18.9. Quantitative Research II
 - 18.9.1. Introduction
 - 18.9.2. Unifactorial Intrasubject Designs
 - 18.9.3. Techniques for Controlling the Effects of Intrasubject Designs
 - 18.9.4. Statistical Techniques
 - 18.9.5. Summary
 - 18.9.6. Bibliographical References
- 18.10. Results
 - 18.10.1. Introduction
 - 18.10.2. How to Gather Data
 - 18.10.3. How to Analyze Data
 - 18.10.4. Statistical Programs
 - 18.10.5. Summary
 - 18.10.6. Bibliographical References
- 18.11. Descriptive Statistics
 - 18.11.1. Introduction
 - 18.11.2. Research Variables
 - 18.11.3. Quantitative Analyses
 - 18.11.4. Qualitative Analyses
 - 18.11.5. Resources that Can Be Used
 - 18.11.6. Summary
 - 18.11.7. Bibliographical References
- 18.12. Hypothesis Contrast
 - 18.12.1. Introduction
 - 18.12.2. Statistical Hypotheses
 - 18.12.3. How to Interpret Significance (p-value)
 - 18.12.4. Criteria for Analyzing Parametric and Non-Parametric Tests
 - 18.12.5. Summary
 - 18.12.6. Bibliographical References
- 18.13. Correlational Statistics and Independence Analysis
 - 18.13.1. Introduction
 - 18.13.2. Pearson Correlation
 - 18.13.3. Spearman's Correlation and Chi-Square
 - 18.13.4. Results
 - 18.13.5. Summary
 - 18.13.6. Bibliographical References
- 18.14. Group Comparison Statistics
 - 18.14.1. Introduction
 - 18.14.2. Mann-Whitney T-Test and Mann-Whitney U-Test
 - 18.14.3. T-Test and Wilcoxon Signed Ranges
 - 18.14.4. The Results
 - 18.14.5. Summary
 - 18.14.6. Bibliographical References
- 18.15. Discussion and Conclusions
 - 18.15.1. Introduction
 - 18.15.2. What is Discussion
 - 18.15.3. Organization of the Discussion
 - 18.15.4. Conclusions
 - 18.15.5. Limitations and Outlook
 - 18.15.6. Summary
 - 18.15.7. Bibliographical References
- 18.16. Elaboration of the Professional Masters Degree Final Project
 - 18.16.1. Introduction
 - 18.16.2. Front Page and Contents
 - 18.16.3. Introduction and Justification
 - 18.16.4. Theoretical Framework
 - 18.16.5. Methodological Framework
 - 18.16.6. The Results
 - 18.16.7. Intervention Program
 - 18.16.8. Discussion and Conclusions
 - 18.16.9. Summary
 - 18.16.10. Bibliographical References

Module 19. Research Methodology II

- 19.1. Research in the Educational Environment
 - 19.1.1. Introduction
 - 19.1.2. Research Characteristics
 - 19.1.3. Research in the Classroom
 - 19.1.4. Keys Needed for Research
 - 19.1.5. Examples
 - 19.1.6. Summary
 - 19.1.7. Bibliographical References
- 19.2. Neuropsychological Research
 - 19.2.1. Introduction
 - 19.2.2. Educational Neuropsychological Research
 - 19.2.3. Knowledge and the Scientific Method
 - 19.2.4. Types of Approaches
 - 19.2.5. Research Stages
 - 19.2.6. Summary
 - 19.2.7. Bibliographical References
- 19.3. Ethics of Research
 - 19.3.1. Introduction
 - 19.3.2. Informed Consent
 - 19.3.3. Data Protection Law
 - 19.3.4. Summary
 - 19.3.5. Bibliographical References
- 19.4. Reliability and Validity
 - 19.4.1. Introduction
 - 19.4.2. Reliability and Validity in Research
 - 19.4.3. Reliability and Validity in Assessment
 - 19.4.4. Summary
 - 19.4.5. Bibliographical References
- 19.5. Controlling Variables in Research
 - 19.5.1. Introduction
 - 19.5.2. Choosing Variables
 - 19.5.3. Controlling Variables
 - 19.5.4. Sample Selection
 - 19.5.5. Summary
 - 19.5.6. Bibliographical References
- 19.6. The Quantitative Research Approach
 - 19.6.1. Introduction
 - 19.6.2. Features
 - 19.6.3. Stages
 - 19.6.4. Evaluation Tools
 - 19.6.5. Summary
 - 19.6.6. Bibliographical References
- 19.7. Qualitative Research Approach I
 - 19.7.1. Introduction
 - 19.7.2. Systematic Observation
 - 19.7.3. Research Stages
 - 19.7.4. Sampling Techniques
 - 19.7.5. Quality Control
 - 19.7.6. Statistical Techniques
 - 19.7.7. Summary
 - 19.7.8. Bibliographical References
- 19.8. Qualitative Research Approach II
 - 19.8.1. Introduction
 - 19.8.2. The Survey
 - 19.8.3. Sampling Techniques
 - 19.8.4. Survey Stages
 - 19.8.5. Research Designs
 - 19.8.6. Statistical Techniques
 - 19.8.7. Summary
 - 19.8.8. Bibliographical References
- 19.9. Qualitative Research Approach III
 - 19.9.1. Introduction
 - 19.9.2. Types of Interviews and Characteristics
 - 19.9.3. Preparing the Interview

- 19.9.4. Group Interviews
- 19.9.5. Statistical Techniques
- 19.9.6. Summary
- 19.9.7. Bibliographical References
- 19.10. Single Case Designs
 - 19.10.1. Introduction
 - 19.10.2. Features
 - 19.10.3. Types
 - 19.10.4. Statistical Techniques
 - 19.10.5. Summary
 - 19.10.6. Bibliographical References
- 19.11. Research-Action
 - 19.11.1. Introduction
 - 19.11.2. Objectives of Research-Action
 - 19.11.3. Features
 - 19.11.4. Phases
 - 19.11.5. Myths
 - 19.11.6. Examples
 - 19.11.7. Summary
 - 19.11.8. Bibliographical References
- 19.12. Gathering Information for Research
 - 19.12.1. Introduction
 - 19.12.2. Techniques for Gathering Information
 - 19.12.3. Assessing Research
 - 19.12.4. Assessment
 - 19.12.5. Interpretation of Results
 - 19.12.6. Summary
 - 19.12.7. Bibliographical References
- 19.13. Data Management in Research
 - 19.13.1. Introduction
 - 19.13.2. Databases
 - 19.13.3. Data in Excel
 - 19.13.4. Data in SPSS
 - 19.13.5. Summary
 - 19.13.6. Bibliographical References
- 19.14. Spreading Results in Neuropsychology
 - 19.14.1. Introduction
 - 19.14.2. Publications
 - 19.14.3. Specialized Journals
 - 19.14.4. Summary
 - 19.14.5. Bibliographical References
- 19.15. Scientific Journals
 - 19.15.1. Introduction
 - 19.15.2. Features
 - 19.15.3. Types of Journals
 - 19.15.4. Quality Indicators
 - 19.15.5. Submitting Articles
 - 19.15.6. Summary
 - 19.15.7. Bibliographical References
- 19.16. The Scientific Article
 - 19.16.1. Introduction
 - 19.16.2. Types and Characteristics
 - 19.16.3. Structure
 - 19.16.4. Quality Indicator
 - 19.16.5. Summary
 - 19.16.6. Bibliographical References
- 19.17. Scientific Conferences
 - 19.17.1. Introduction
 - 19.17.2. The Importance of Conferences
 - 19.17.3. Scientific Committees
 - 19.17.4. Oral Communications
 - 19.17.5. The Scientific Poster
 - 19.17.6. Summary
 - 19.17.7. Bibliographical References

06

Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

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



“

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

At TECH we use the Case Method

When faced with a certain situation, what should a professional do? Throughout the program, students will be presented with multiple simulated clinical cases based on real patients, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH, psychologists can experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvás, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the psychologist's professional practice.

“

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

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

1. Psychologists who follow this method not only grasp concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their knowledge.
2. The learning is solidly focused on practical skills that allow the psychologist to better integrate the knowledge into clinical practice.
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.



Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

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



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

With this methodology we have trained more than 150,000 psychologists with unprecedented success in all clinical specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

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

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



This program offers the best educational material, specifically prepared for professionals:



Study Material

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

These contents are then applied to the audio-visual format to create the online work method of TECH. All with the newest techniques that offer items of great quality in all the materials made available to the students.



Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current psychology. All of this, first hand, with maximum rigor, explained and detailed to contribute to the assimilation and understanding of the student. And best of all, you can watch them as many times as you want.



Interactive Summaries

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

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



Additional Reading

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





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

Students' knowledge is periodically evaluated and re-evaluated throughout the program, through assessment and self-assessment activities and exercises: so that, this way, students can see how they are achieving their goals.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress with their learning.



07

Certificate

This Advanced Master's Degree in Clinical Neuropsychology and Neuroeducation guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.





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

This **Advanced Master's Degree in Clinical Neuropsychology and Neuroeducation** contains the most complete and up-to-date program on the market.

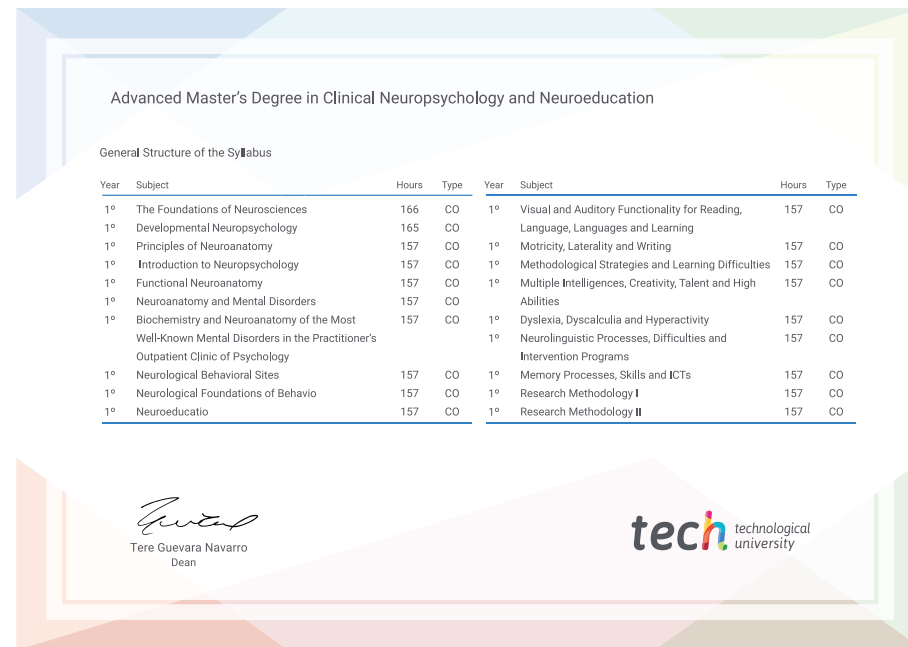
After the student has passed the assessments, they will receive their corresponding Advanced Master's Degree issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Advanced Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Advanced Master's Degree in Clinical Neuropsychology and Neuroeducation**

Modality: **online**

Duration: **2 years**



*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present quality
development language
classroom

tech technological
university

**Advanced Master's
Degree**
Clinical europsychology
and Neuroeducation

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Advanced Master's Degree Clinical Neuropsychology and Neuroeducation

