

# Master's Degree Neurosciences



## Master's Degree Neurosciences

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

Website: [www.techtitute.com/us/education/master-degree/master-neurosciences](http://www.techtitute.com/us/education/master-degree/master-neurosciences)

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01

# Introduction to the Program

Teaching, in recent times, increasingly requires the support of other disciplines that accompany and assist it in addressing the various situations that arise in the classroom. Neurosciences become, in this context, an extremely valuable tool when it comes to advancing the planning and implementation of effective educational intervention strategies in specific contexts. In this regard, TECH has created an exclusive university program focused on Neurosciences. Furthermore, it is delivered in a convenient, fully online format.





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*Discover how neurosciences can transform  
your professional career with this innovative  
Master's Degree”*

In recent decades, the advancement of Neurosciences has generated growing interest in the educational field. In this regard, understanding how the brain learns, how emotions are regulated, and how cognitive functions develop is essential for designing more effective pedagogical strategies. Therefore, it is crucial that professionals acquire up-to-date knowledge about brain function and its relationship to teaching and learning processes. This understanding will allow them to adapt their methodologies, identify cognitive or emotional difficulties early on, and foster more inclusive, motivating, and effective learning environments based on scientific evidence and oriented toward the holistic development of students.

This Master's Degree in Neurosciences offers a broad and comprehensive view of the complex world of Neurosciences from an applied perspective. Starting with the biological foundations and neuroimaging techniques, various practical approaches within this discipline are explored. Throughout the training, two types of neuropsychological programs will be addressed: those primarily biologicistic, focused on the neural and genetic foundations of the brain, and the exclusively clinical programs, which delve into the issues associated with brain disorders and neurodegenerative diseases.

It is worth noting that, to reinforce these contents, TECH Global University relies on the revolutionary Relearning methodology. This teaching system is based on the repetition of key concepts to consolidate optimal understanding. The only requirement for nurses is to have an electronic device (such as a mobile phone, computer, or tablet) connected to the internet, allowing them to access the Virtual Campus and view the content at any time. As such, they will learn from the comfort of their homes, forgetting about in-person attendance and inconvenient preset schedules.

In addition, a prestigious International Guest Director will deliver 10 exclusive Masterclasses.

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

- ♦ Practical cases presented by experts in Neurosciences
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*A renowned International Guest Director will offer 10 intensive Masterclasses, delving into the latest advances in Neurosciences"*

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*The specialized readings will allow you to further expand the rigorous academic content provided in this program”*

The teaching staff includes professionals from the field of Neurosciences, who contribute their practical experience to this program, as well as recognized specialists from leading societies and prestigious universities.

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

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

*You will explore the neurobiological foundations of learning, memory, attention, and executive functions.*

*Thanks to the Relearning system used by TECH, you will reduce the long hours of study and memorization.*



02

# Why Study at TECH?

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





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

**The world's best online university, according to FORBES**

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

**Forbes**

The best online university in the world

The most complete **syllabus**

**The most complete syllabuses on the university scene**

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

**The best top international faculty**

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

**TOP**  
international faculty

The most effective methodology

**A unique learning method**

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

**The world's largest online university**

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

**World's No.1**  
The World's largest online university

**The official online university of the NBA**

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

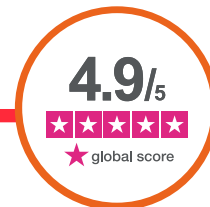
**Leaders in employability**

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



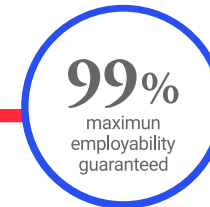
**Google Premier Partner**

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



**The top-rated university by its students**

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



# 03

# Syllabus

The syllabus will delve into aspects ranging from the neurobiological foundations of the brain and the principles of emotional intelligence to the basics of neuropsychology. In this way, educators will develop a deep understanding of brain function in educational contexts, enabling them to apply more effective teaching strategies, foster meaningful learning, and address the cognitive and emotional diversity of the classroom. Additionally, they will be trained to identify warning signs in student development and actively collaborate in multidisciplinary teams from a neuroeducational perspective.



An abstract graphic of a glowing blue neural network or brain scan, with bright blue nodes and connecting lines, set against a dark blue background with a grid pattern. The graphic is positioned on the left side of the page, overlapping a white diagonal area.

“

*Learn how to apply advancements in Neurosciences to enhance strategic decision-making”*

## Module 1. Principles of Neurosciences

- 1.1. The Nervous System and Neurons
- 1.2. The Formation of the Nervous System
- 1.3. Types of Neurons
- 1.4. Neurobiological Principles of the Brain
  - 1.4.1. Brain Hemispheres and Lobes
  - 1.4.2. Localizationism vs. Brain Functionalism
- 1.5. Genetics and Neurodevelopment
  - 1.5.1. Undifferentiated Neurons
  - 1.5.2. Programmed Neuronal Death
  - 1.5.3. Myelination
- 1.6. Electrical Interneuronal Communication
  - 1.6.1. Role of Myelin in Neurons
- 1.7. Brain Neurochemistry
  - 1.7.1. Interneuronal Chemical Communication
  - 1.7.2. Neurohormones and Their Functions
- 1.8. Plasticity and Brain Development
  - 1.8.1. Age vs Neuronal Plasticity
  - 1.8.2. Neurodevelopment
- 1.9. Hemispheric Differences
  - 1.9.1. Right Brain
  - 1.9.2. Left Brain
  - 1.9.3. Interhemispheric Connectivity
  - 1.9.4. White Matter
  - 1.9.5. Gender Differences
- 1.10. Localizationism vs. Functionalism
  - 1.10.1. Hemispheric Functions
  - 1.10.2. New Localizationism
- 1.11. Techniques for Studying the Brain: Invasive vs. Non-Invasive
  - 1.11.1. Invasive Techniques
  - 1.11.2. Non-Invasive Techniques

## Module 2. The Emotional Brain

- 2.1. The Emotional Brain
  - 2.1.1. The Papez Circuit
  - 2.1.2. The Limbic Brain
- 2.2. Positive vs. Negative Emotions
  - 2.2.1. Amygdala and Positive Emotion
  - 2.2.2. Amygdala and Negative Emotion
  - 2.2.3. Arousal vs. Valence
  - 2.2.4. The Intensity of Emotion
  - 2.2.5. The Affective Value of Emotion
- 2.3. Emotional Intelligence and the Education of Emotions According to the Mayer and Salovey Model
  - 2.3.1. Emotional Intelligence
  - 2.3.2. The Model of Mayer and Salovey
  - 2.3.3. Other Models of Emotional Intelligence and Emotional Transformation
  - 2.3.4. Emotional Maturation vs. Emotional Intelligence
  - 2.3.5. Emotional Relearning
- 2.4. Social-Emotional Competencies and Creativity by Level of Intelligence
  - 2.4.1. Intelligence and Social Skills
  - 2.4.2. Intelligence and Creativity
- 2.5. Emotional Co-Efficiency vs. Intelligence
  - 2.5.1. Academic Intelligence
  - 2.5.2. Multiple Intelligences
- 2.6. Alexithymia vs. Hyperemotivity
  - 2.6.1. Emotional Illiteracy
  - 2.6.2. Hypersensitivity to Emotions
- 2.7. Emotional Health
  - 2.7.1. Intelligence and Emotion
  - 2.7.2. Emotional Intelligence
  - 2.7.3. The Social Brain
  - 2.7.4. Creativity and Intelligence
  - 2.7.5. Self-Knowledge and Intelligence

**Module 3. Neuropsychology**

- 3.1. Principles of Neuropsychology
  - 3.1.1. Defining Neuropsychology
  - 3.1.2. Psychological Processes
  - 3.1.3. Neuropsychological Assessment
- 3.2. Sensation and Awareness
  - 3.2.1. Defining Sensation
  - 3.2.2. Neurological Basis of Sensation
  - 3.2.3. Evaluation of Sensation
  - 3.2.4. Defining Perception
  - 3.2.5. Neurological Foundations of Perception
  - 3.2.6. Evaluation of Perception
- 3.3. Attention
  - 3.3.1. Defining Attention
  - 3.3.2. Neurological Foundations of Attention
  - 3.3.3. Care Evaluation
  - 3.3.4. Attention disturbances
- 3.4. Memory
  - 3.4.1. Defining Memory
  - 3.4.2. Neurological Foundations of Memory
  - 3.4.3. Memory Evaluation
  - 3.4.4. Alterations of Memory
- 3.5. Emotion
  - 3.5.1. Defining Emotion
  - 3.5.2. Neurological Foundations of Emotion
  - 3.5.3. Emotion Evaluation
  - 3.5.4. Emotional Disturbances
- 3.6. The Language
  - 3.6.1. Defining Language
  - 3.6.2. Neurological Foundations of Language
  - 3.6.3. Language Assessment
  - 3.6.4. Language Impairment

- 3.7. Executive Functions
  - 3.7.1. Defining Executive Functions
  - 3.7.2. Neurological Foundations of Executive Functions
  - 3.7.3. Executive Functions Assessment
  - 3.7.4. Executive Function Disorders
- 3.8. Motivation
  - 3.8.1. Defining Motivation
  - 3.8.2. Neurological Basis of Motivation
  - 3.8.3. Motivation Assessment
  - 3.8.4. Alterations of Motivation
- 3.9. Metacognition
  - 3.9.1. Defining Metacognition
  - 3.9.2. Neurological Foundations of Metacognition
  - 3.9.3. Metacognition Assessment
  - 3.9.4. Metacognition Disorders
- 3.10. Intelligence
  - 3.10.1. Defining Intelligence
  - 3.10.2. Neurological Foundations of Intelligence
  - 3.10.3. Evaluation of Intelligence
  - 3.10.4. Intelligence Disorders

**Module 4. Neuroeducation**

- 4.1. Neural Principles of Learning
  - 4.1.1. Experience on a Neural Level
  - 4.1.2. Learning on a Neural Level
- 4.2. Cerebral Learning Models
  - 4.2.1. Traditional Learning Models
  - 4.2.2. New Learning Models
- 4.3. Cognitive Processes and Learning
  - 4.3.1. Cognitive Processes and the Brain
  - 4.3.2. Cognitive Processes and Learning

- 4.4. Emotions and Learning
  - 4.4.1. Emotion and the Brain
  - 4.4.2. Emotion and Learning
- 4.5. Socialization and Learning
  - 4.5.1. Socialization and the Brain
  - 4.5.2. Socialization and Learning
- 4.6. Cooperation and Learning
  - 4.6.1. Cooperation and the Brain
  - 4.6.2. Cooperation and Learning
- 4.7. Self-Control and Learning
  - 4.7.1. Self-Control and the Brain
  - 4.7.2. Self-Control and Learning
- 4.8. Different Minds, Different Learning Experiences
  - 4.8.1. Different Minds from a Neuroeducational Perspective
  - 4.8.2. Giftedness from a Neuroeducational Perspective
- 4.9. Neuromyths in Education
  - 4.9.1. The Brain and Adult Learning
  - 4.9.2. The Brain and Learning in Autism
- 4.10. Neurodidactics Applied to the Classroom
  - 4.10.1. The Neurodidactics of Attention
  - 4.10.2. The Neurodidactics of Motivation

## Module 5. Neurolinguistics

- 5.1. Language and the Brain
  - 5.1.1. Communicative Processes of the Brain
  - 5.1.2. The Brain and Speech
- 5.2. The Psycholinguistic Context
  - 5.2.1. Foundations of Psycholinguism
  - 5.2.2. The Brain and Psycholinguism
- 5.3. Language Development vs. Neural Development
  - 5.3.1. Neural Foundations of Language
  - 5.3.2. Neural Development of Language

- 5.4. The Spoken Language and Written Language
  - 5.4.1. Childhood and Language
  - 5.4.2. Adulthood and Language
- 5.5. The Brain in Bilingualism
  - 5.5.1. Native Language at the Neural Level
  - 5.5.2. Multiple Languages at the Neural Level
- 5.6. Developmental Speech and Language Disorders
- 5.7. Intelligence and Linguistic Development
  - 5.7.1. Types of Intelligence and Language
- 5.8. Childhood Language Development
  - 5.8.1. Phases of Language in Childhood
  - 5.8.2. Difficulties in Childhood Language Development
- 5.9. Adolescent Brain
  - 5.9.1. Adolescence Language Development
  - 5.9.2. Language Difficulties in Adolescence

## Module 6. Neuromarketing

- 6.1. The Brain in the Face of Decisions
  - 6.1.1. Single or Multiple Choices
  - 6.1.2. The Neural Learning of Choices
- 6.2. Pleasure vs. Surprise
  - 6.2.1. The Brain and Pleasure
  - 6.2.2. The Brain and Surprise
- 6.3. The Consumer Brain
  - 6.3.1. Decisions and Choices on a Neural Level
  - 6.3.2. Consumption as the Purpose of Choosing
- 6.4. The Ages of the Brain
  - 6.4.1. Child Brain and Choices
  - 6.4.2. Adult Brain and Choices
- 6.5. Male Brain vs. Female Brain
  - 6.5.1. Male Brain and Choices
  - 6.5.2. Female Brain and Choices



- 6.6. Mirror Neurons and Social Behavior
  - 6.6.1. The Relevance of Mirror Neurons in Marketing
  - 6.6.2. Social and Prosocial Behavior in Marketing
- 6.7. Learning and Memory
  - 6.7.1. Learning Decisions
  - 6.7.2. Remembering and Forgetting Decisions
- 6.8. Neuromarketing Evaluation Techniques
  - 6.8.1. Invasive Neural Techniques
  - 6.8.2. Non-Invasive Neural Techniques
- 6.9. Successes and Failures of Neuromarketing
  - 6.9.1. Applied Cases of Neuromarketing
  - 6.9.2. Results of Neuromarketing
- 6.10. Sales Technologies vs. Neuromarketing
  - 6.10.1. Sales Technology and the Brain
  - 6.10.2. Neuromarketing and Sales

### Module 7. Neuroeconomics

- 7.1. The Economic Brain
  - 7.1.1. Numbers and the Brain
  - 7.1.2. Mathematics and the Brain
- 7.2. Neural Foundations of Calculation Errors
  - 7.2.1. Simple vs. Complex Calculations
  - 7.2.2. Common Mathematical Mistakes
- 7.3. Development of the Mathematical Brain
  - 7.3.1. Language vs. Mathematics on a Cerebral Level
  - 7.3.2. Mathematical Development
- 7.4. Mathematics vs. Intelligence
  - 7.4.1. Intelligence and Mathematics
  - 7.4.2. Multiple and Mathematical Intelligences
- 7.5. Trends and Fads at the Neural Level
  - 7.5.1. Implicit vs. Explicit Theories of Trend
  - 7.5.2. Fashion and Neural Trend

- 7.6. Risk Assumption vs. Conservation
  - 7.6.1. Personality and Risk
  - 7.6.2. Brain and Risk
- 7.7. Mathematical Biases
  - 7.7.1. Basic Mathematical Biases
  - 7.7.2. Complex Mathematical Biases
- 7.8. Emotions vs. Economics
  - 7.8.1. Positive Neural Emotions and the Economy
  - 7.8.2. Negative Neural Emotions and the Economy
- 7.9. Economic Success and Failure
  - 7.9.1. Economic Success on a Neural Level
  - 7.9.2. Economic Failure on a Neural Level
- 7.10. Economic Psychopathology
  - 7.10.1. Clinical and Economic Psychology
  - 7.10.2. Personality and Economy

### Module 8. Neuroleadership

- 8.1. Genetic Leadership vs. Environmental Leadership
  - 8.1.1. The Genetics of Leadership
  - 8.1.2. Training the Leader
- 8.2. Leadership Styles
  - 8.2.1. Types of Leadership
  - 8.2.2. Delegating Leadership
- 8.3. Neural Biases
  - 8.3.1. Leader on a Neural Level
  - 8.3.2. Employee on a Neural Level
- 8.4. Habits and Change of Patterns
  - 8.4.1. The Leader's Patterns
  - 8.4.2. The Employees Patterns
- 8.5. Emotion vs. Leadership
  - 8.5.1. The Leader's Emotions
  - 8.5.2. The Employee's Emotions

- 8.6. Communication Skills
  - 8.6.1. The Leader's Communication
  - 8.6.2. The Employee's Communication
- 8.7. The Stressed Brain
  - 8.7.1. The Leader's Stress
  - 8.7.2. The Employee's Stress
- 8.8. Self-Management vs. Relinquishing Responsibility
  - 8.8.1. The Leader's Self-Management
  - 8.8.2. The Employee's Responsibility
- 8.9. Successes and Failures on a Neural Level
  - 8.9.1. The Leader's Successes and Failures
  - 8.9.2. The Employee's Successes and Failures
- 8.10. Neuroleadership Optimization Strategies
  - 8.10.1. Neuroleadership Training
  - 8.10.2. Successes in Neuroleadership

### Module 9. Neuropolitics

- 9.1. The Political Brain
  - 9.1.1. The Social Brain
  - 9.1.2. Political Choice at the Neuronal Level
- 9.2. Attentional Biases
  - 9.2.1. Personal Choice
  - 9.2.2. Family Tradition
- 9.3. Political Belonging
  - 9.3.1. Belonging to a Group
  - 9.2.2. Group Biases
- 9.4. Political Emotions
  - 9.4.1. The Positive Emotions of Politics
  - 9.4.2. The Negative Emotions of Politics
- 9.5. Right vs. Left
  - 9.5.1. Right-Wing Brain
  - 9.5.2. Left-Wing Brain

- 9.6. The Politician's Image
  - 9.6.1. Candidate and the Brain
  - 9.6.2. Political Collaborators and the Brain
- 9.7. The Party Brand
  - 9.7.1. Political Branding
  - 9.7.2. The Brain and Political Brands
- 9.8. Political Campaigns
  - 9.8.1. Advertising Campaigns in Politics
  - 9.8.2. Electoral Campaigns in Politics
- 9.9. The Decision to Vote
  - 9.9.1. Voter Profile
  - 9.9.2. Undecided Voter Profile
- 9.10. New Tools Applied to Neuropolitics
  - 9.10.1. Cases of Neuropolitics Application
  - 9.10.2. Successes of Neuropolitics

### Module 10. Other Branches of Applied Neurosciences

- 10.1. Neurobranding
  - 10.1.1. Brand and Personal Styles in the Brain
  - 10.1.2. Enhancing the Brain Brand with Neuroscience Techniques
- 10.2. Neuroarchitecture
  - 10.2.1. Awe and Admiration in Neurosciences
  - 10.2.2. Functionality and Environmental Development in Neurosciences
- 10.3. Neurotechnology
  - 10.3.1. The Use of Technologies in Neurosciences
  - 10.3.2. Neuroimplants
- 10.4. Neuroethics
  - 10.4.1. Limits of Research in Neurosciences
  - 10.4.2. Dangers of Neurosciences
- 10.5. Neuro-Spirituality
  - 10.5.1. The Neural Center of Faith
  - 10.5.2. The Neural Center of Spirituality

- 10.6. Neurofashion
  - 10.6.1. Fashion and the Brain
  - 10.6.2. Style and Taste at the Cerebral Level
- 10.7. Neurogastronomy
  - 10.7.1. Taste and the Brain
  - 10.7.2. Enhancing Brain Gastronomy
- 10.8. Psychoneuroimmunoendocrinology
  - 10.8.1. Emotions and the Brain
  - 10.8.2. Oxidative Stress and the Brain
- 10.9. Neurocriminology
  - 10.9.1. Psychopathic Personality
  - 10.9.2. Neural Disorganized Behaviors
- 10.10. Neuroculture
  - 10.10.1. Culture and the Brain
  - 10.10.2. Society and the Brain

“*TECH's learning system follows the highest international quality standards*”

04

# Teaching Objectives

This university program is designed to train educators in the application of Neurosciences in the classroom, enabling them to incorporate innovative approaches and advanced strategies into their teaching practices. Through a structured learning process, participants will acquire knowledge about the brain's functioning in the teaching and learning process, enhancing their understanding and application of methodologies based on neuroeducation.



A composite image featuring a microscopic view of neurons. The left side shows neurons with bright green fluorescence against a dark background. The right side shows neurons with red fluorescence. A diagonal line separates the green and red sections. The bottom right corner is a solid red triangle.

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*You will promote the design of teaching strategies grounded in neuroscientific evidence, tailored to the needs of the classroom”*



## General Objectives

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- ♦ Update knowledge on Neurosciences in its various fields of application, including clinical, educational, and social areas
- ♦ Enhance the quality of professional practice for educators in their performance
- ♦ Introduce the teacher to the vast world of Neurosciences from a practical perspective
- ♦ Gain an understanding of the various disciplines involved in studying the brain in relation to human behavior and its possibilities
- ♦ Learn to use the tools employed in neuroscience research and practice
- ♦ Develop skills and expertise in emotional development in the classroom





## Specific Objectives

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### Module 1. Principles of Neurosciences

- ♦ Learn the education of the nervous system
- ♦ Understand the types of neurons

### Module 2. The Emotional Brain

- ♦ Recognize the role of emotional intelligence
- ♦ Understand the Mayer and Salovey model

### Module 3. Neuropsychology

- ♦ Classify neurohormones and their functions
- ♦ Differentiate between age and neuronal plasticity

### Module 4. Neuroeducation

- ♦ Examine the relationship between intelligence and creativity
- ♦ Analyze academic intelligence

### Module 5. Neurolinguistics

- ♦ Differentiate between gross vs. fine motor skills
- ♦ Approach experience at the neuronal level

### Module 6. Neuromarketing

- ♦ Examine metacognitive development
- ♦ Analyze the role of sensation

### Module 7. Neuroeconomics

- ♦ Delve into the concept of the economic brain
- ♦ Understand the neural bases of calculation errors

### Module 8. Neuroleadership

- ♦ Understand how successes and failures affect the brain
- ♦ Learn how to apply different neuro leadership optimization strategies

### Module 9. Neuropolitics

- ♦ Delve into the concept of the political brain
- ♦ Understand how group belonging and group bias are formed

### Module 10. Other Branches of Applied Neurosciences

- ♦ Explore neurobranding
- ♦ Understand the concept of neuroarchitecture and its functioning



*Comprehend brain functioning in relation to the cognitive, emotional, and behavioral development of students”*

05

# Career Opportunities

This comprehensive university program at TECH Global University represents an exceptional opportunity for all education professionals interested in Neurosciences who wish to expand their knowledge and competencies in this constantly evolving field. Through innovative methodology and up-to-date content, graduates of this curriculum will gain access to new career opportunities and strengthen their professional profile.







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*Become an expert in Neuroeducation  
and revolutionize teaching with the  
most advanced active methodologies”*

### Graduate Profile

The graduate of this Master's Degree will be a highly qualified professional capable of integrating the latest advances in Neurosciences into their professional practice. At the same time, they will possess the skills to analyze, design, and implement strategies based on the functioning of the human brain, promoting the development of innovative solutions in education, health, research, and business. Moreover, they will be prepared to address ethical challenges and ensure the correct application of neuroscientific knowledge within their specialty.

*They will promote more inclusive, effective teaching focused on the holistic development of students, based on the understanding of the brain.*

- ♦ **Specialization in Applied Neurosciences:** Ability to apply knowledge in neuroscience to improve teaching, clinical practice, and organizational management
- ♦ **Cognitive and Learning Optimization:** Ability to design strategies based on brain functioning that enhance information retention and processing
- ♦ **Ethics and Responsible Application of Neuroscientific Knowledge:** Commitment to ethical principles in the use of Neurosciences, ensuring safe and responsible practices
- ♦ **Interdisciplinary Collaboration:** Ability to integrate neuroscientific knowledge into multidisciplinary teams, contributing an innovative perspective in various professional fields



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

- 1. Applied Neurosciences Researcher:** Responsible for developing studies and research projects in Neurosciences, analyzing the impact of advancements in this field on education, health, and technology.
- 2. Organizational Neuroscience Consultant:** Expert in the application of neuroscientific knowledge to improve decision-making, leadership, and talent management in companies and institutions.
- 3. Neuromarketing Strategy Developer:** Professional who integrates neuroscience knowledge into marketing to enhance communication and the impact of commercial strategies.
- 4. Applied Neurosciences Project Coordinator:** Leader of interdisciplinary projects aimed at integrating advances in Neurosciences across various fields, promoting innovation and technological development.



*You will be able to identify cognitive or emotional barriers that affect students' academic performance"*

06

# Study Methodology

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

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



“

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

### The student: the priority of all TECH programs

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

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

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

“

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



### The most comprehensive study plans at the international level

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

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

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

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

## Case Studies and Case Method

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

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

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





## Relearning Methodology

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

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

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

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



## A 100% online Virtual Campus with the best teaching resources

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

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

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

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



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

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

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

### The university methodology top-rated by its students

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

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

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

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



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



#### Study Material

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

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



#### Practicing Skills and Abilities

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



#### Interactive Summaries

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

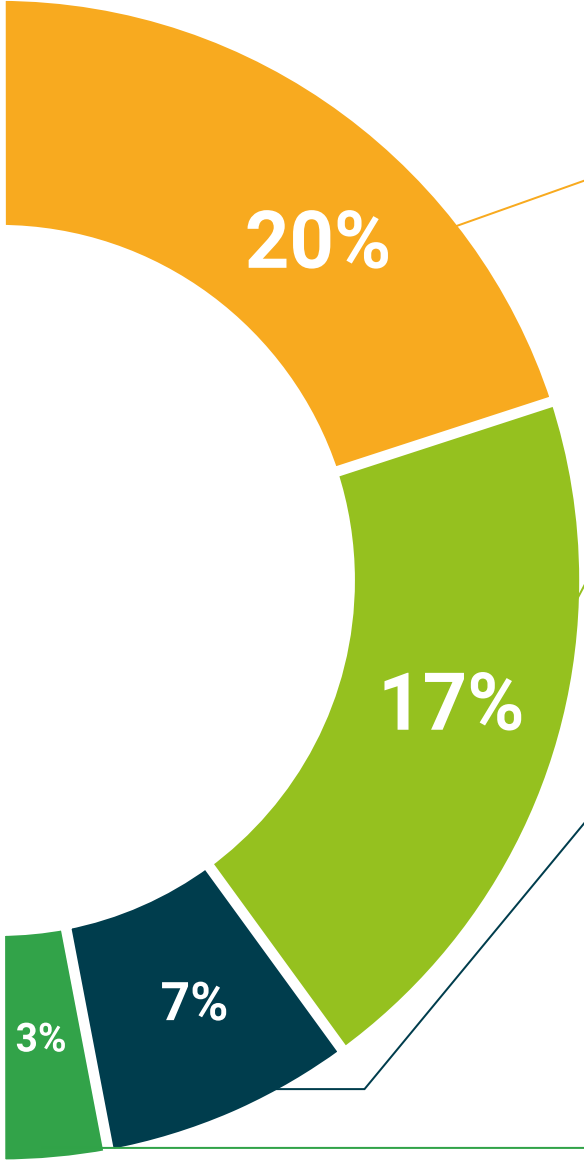
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

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





**Case Studies**

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.



**Quick Action Guides**

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



07

# Teaching Staff

In this Master's Degree, graduates will have the support of a highly qualified teaching staff in a multidisciplinary approach, with leading experts in the field of Neurosciences dedicated to providing the best online education. These professionals have developed numerous educational materials that stand out for their exceptional quality and their alignment with the current job market requirements.



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*You will have the support of the teaching team, composed of recognized experts in Neurosciences”*

## International Guest Director

Dr. Malek Bajbouj is a Psychiatrist and Neuroscientist, specialized in the areas of Global Health, Mental Health and Affective Sciences. He also has experience as a Sleep Physician and Social, Affective and Cognitive Neuroscientist. Together with an interdisciplinary team, his work has focused on research on stress, affect and emotions. In particular, to carry out these studies, some of his main work has focused on cell culture, imaging and brain stimulation, as well as humanitarian aid.

Most of his professional experience has been as Medical Director and Head of the Center for Affective Neuroscience at the Charité Universitätsmedizin Berlin. In addition, his main research focus in the field of Global Mental Health has been the development of tailored, low-threshold preventive and therapeutic interventions against stress and trauma-related disorders. To this end, he has made use of digital tools and clinical trials, conducting interventions focused on reverse-innovation electrophysiological and neuroimaging approaches to improve patient phenotyping.

Likewise, Dr. Malek Bajbouj's firm commitment to Mental Health worldwide has led him to develop a large part of his professional activity in countries in the Middle East, Far East and Ukraine. In this sense, he has participated in various international conferences such as the Ukrainian-German Conference on Mental Health, Psychosocial Support and Rehabilitation. He has also written more than 175 book chapters and has an extensive list of scientific publications in which he has investigated topics such as Emotional Neuroscience, Affective Disorders and Global Mental Health.

In fact, his contributions in Psychiatry and Neuroscience have been awarded several times. One of them was in 2014, when he was awarded the Else Kröner-Fresenius Prize, recognizing his outstanding scientific research. And it is that his tireless work to strengthen the mental health of people around the world has positioned him as one of the best professionals in his field.





## Dr. Bajbouj, Malek

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- Medical Director of the Center for Affective Neuroscience at Charité Universitätsmedizin, Berlin, Germany
- Visiting Research Fellow at the Department of Psychiatry, Columbia University and the New York State Psychiatric Institute
- Physician and Assistant Researcher at the Free University of Berlin
- Specialist in Sleep Medicine
- Specialist in Psychiatry and Psychotherapy
- Master of Business Administration from Steinbeis-Hochschule University
- Graduate in Medicine from the Johannes Gutenberg University
- Member of: Research Group Languages of Emotion at the Freie Universität Berlin

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

## Management



### Dr. De la Serna, Juan Moisés

- ◆ Independent Psychologist and expert writer in Neurosciences
- ◆ Writer specialized in Psychology and Neurosciences
- ◆ Author of the Open Chair of Psychology and Neurosciences
- ◆ Scientific Disseminator
- ◆ Doctorate in Psychology
- ◆ Bachelor's Degree in Psychology. University of Seville
- ◆ Master's Degree in Neurosciences and Behavioral Biology. Pablo de Olavide University, Seville
- ◆ Expert in Teaching Methodology. La Salle University
- ◆ University Specialist in Clinical Hypnosis, Hypnotherapy. National University of Distance Education - UNED
- ◆ Diploma in Social Graduate, Human Resources Management, Personnel Administration. University of Seville
- ◆ Expert in Project Management, Administration and Business Management. Federation of Services U.G.T
- ◆ Trainer of Trainers. Official College of Psychologists of Andalusia



### **Ms. Jiménez Romero, Yolanda**

- ♦ Pedagogical Advisor and External Educational Collaborator
- ♦ Academic Coordinator of Online University Campus
- ♦ Territorial Director of the Extremadura-Castile La Mancha Institute of High Abilities
- ♦ Creation of INTEF Educational Contents in the Ministry of Education and Science
- ♦ Degree in Primary Education, English specialization
- ♦ Psychopedagogue by the International University of Valencia
- ♦ Master's Degree in Neuropsychology of High Abilities
- ♦ Master's Degree in Emotional Intelligence Specialist in NLP Practitioner

## **Teachers**

### **Ms. Pellicer Royo, Irene**

- ♦ Expert in Emotional Education at the Jesuitas-Caspe School, Barcelona
- ♦ Master's Degree in Medical Sciences Applied to Physical Activity and Sport by the University of Barcelona
- ♦ Master's Degree in Emotional Education and Well-being from the University of Barcelona
- ♦ Bachelor's Degree in Physical Activity and Sport Sciences at the University of Lérida

08

# Certificate

The Master's Degree in Neurosciences guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University..



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

This private qualification will allow you to obtain a **Master's Degree in Neurosciences** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

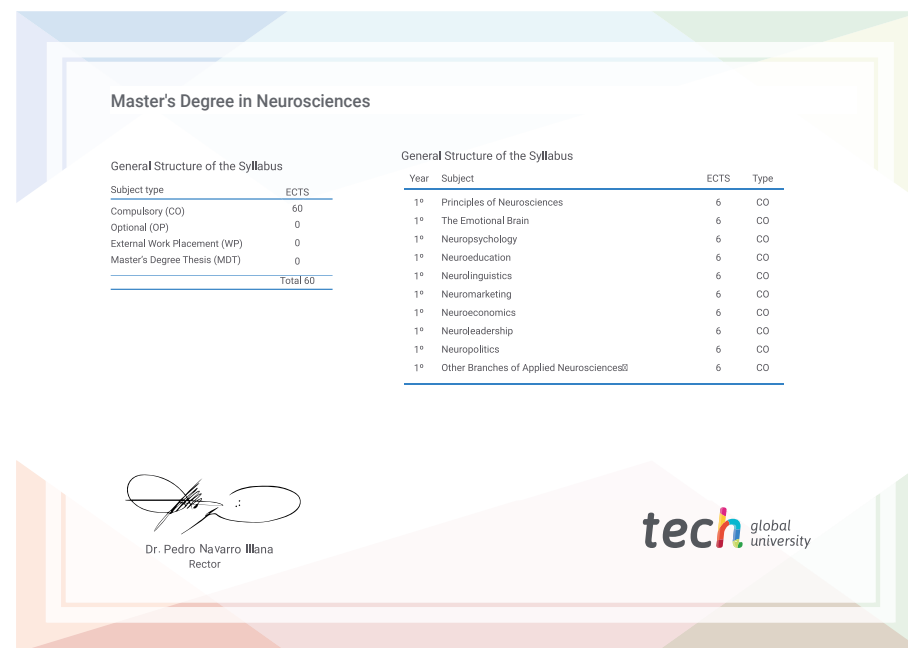
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Neurosciences**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

development language

virtual classroom

**tech** global  
university

## Master's Degree Neurosciences

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

# Master's Degree Neurosciences