

Postgraduate Certificate Neurosciences in Psychology



Postgraduate Certificate Neurosciences in Psychology

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/psychology/postgraduate-certificate/neurosciences-psychology

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Introduction

Keeping up to date on Neurosciences applied to Psychology can be a real challenge for professionals seeking to sustain an up-to-date therapeutic practice. Many programs do not meet the latest standards, nor are they flexible in terms of scheduling or unnecessary travel. All of those gaps are left behind with this unique and comprehensive TECH syllabus. The university program delves into the scientific discoveries about the structure and function of neurons, cognitive processes and the neurochemistry of the brain. All this through a 100% online methodology, unparalleled on the educational market, which facilitates access to its contents from a Virtual Campus equipped with a variety of teaching resources and is supported by the innovative Relearning method to facilitate the mastery of complex concepts.



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Thanks to this 100% online Postgraduate Certificate you will acquire a broad specialization in the impact that neural development can have in determining the appearance of a psychopathology in your patients”

Psychology and Neurosciences are two very complex disciplines with multiple links. However, it is a fact that some of these interrelationships have been little studied or, at least, many times professionals more dedicated to one than to the other, have not addressed in depth the points of contact between them. In daily clinical practice, this leads to many cases where patients are diagnosed in an inaccurate manner or are simply completely ruled out as being affected by some neuropsychological condition without this being true.

For this reason, more and more professionals from both fields are looking for up-to-date knowledge about this close relationship between both disciplines. All this with the premise of putting these skills at the service of people whose disorders have not been properly identified or, even, with the desire to provide new research in this line.

This is why TECH has created a comprehensive program titled Neurosciences in Psychology. A 100% online program that in its syllabus covers topics such as the functioning of the nervous system and neurons, the hemispheric differences of the brain and its neurochemical principles. In addition, the syllabus delves into myelination and the impact of vision in defining people's responses to certain stimuli.

The study of this academic itinerary is developed over 6 intensive weeks. During this period of time, psychologists who join the course have guaranteed access to an exclusive and very complete Virtual Campus. A teaching platform that meets the most disruptive standards of 100% online teaching, equipped with explanatory videos, interactive summaries, complementary readings and many other teaching materials.

At the same time, the contents of the university program will be available 24 hours a day, so that it is the graduate who determines when to use them, according to their individual schedules and obligations. It will also have the Relearning system, a method in which TECH is a pioneer that facilitates the assimilation of concepts through repetition.

This **Postgraduate Certificate in Neurosciences in Psychology** contains the most complete and up-to-date scientific program on the market. The most important features include:

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



Get up to date on the different aspects of this TECH program asynchronously, without tight schedules from the device of your choice with an Internet connection”

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A Postgraduate Certificate based on the disruptive Relearning method that allows you to strengthen the mastery of complex concepts through repetition”

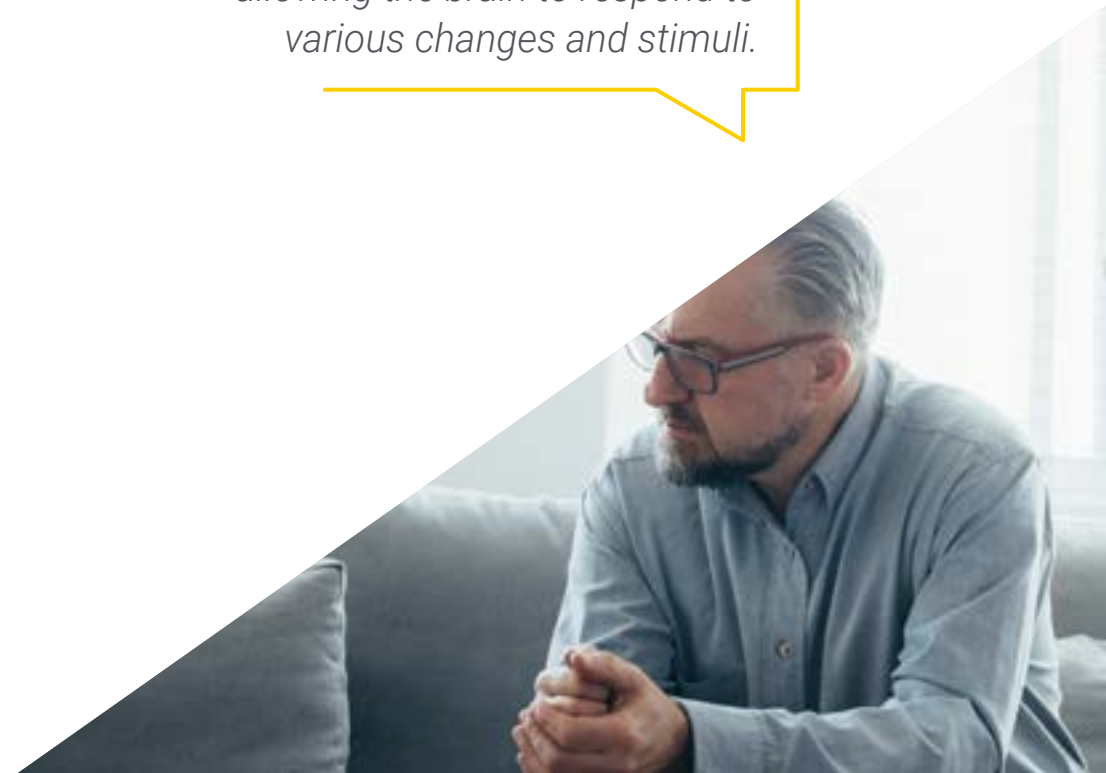
The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing program, as well as renowned specialists from leading societies and prestigious universities.

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.

This syllabus will allow you to analyze how the visual system and cortex are studied by the Neurosciences to clarify the mechanisms involved in perception and human responses.

You will learn how neuronal plasticity allows adaptations and learning, allowing the brain to respond to various changes and stimuli.



02

Syllabus

This Postgraduate Certificate in Neurosciences in Psychology delves into the essential principles of the nervous system, from the structure and function of neurons to synaptic communication, key in cognitive processes. It also covers brain development, influenced by genetic and environmental factors, and plasticity, which allows adaptation and learning. In addition, the syllabus delves into the neurochemistry of the brain, where neurohormones play a crucial role in emotional and behavioral regulation, providing a comprehensive view of brain function. All this through an exclusive methodology that combines the Relearning system with the Case Method, in a 100% online learning environment.



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You will have various multimedia resources, such as explanatory videos and interactive summaries, to address the neurochemistry of the brain and its impact on psychological processes”

Module 1. Neurosciences in Psychology

- 1.1. Basic and General Concepts of Neurons
 - 1.1.1. Basic Concepts
 - 1.1.2. Neurons. Structure and Classification
 - 1.1.3. Hematoencephalic Barrier
 - 1.1.4. Glial Cells
- 1.2. Neuronal Communication
 - 1.2.1. Types of Synapses
 - 1.2.2. Synaptic Potential
 - 1.2.3. Functional Characteristics of the Synapse
 - 1.2.4. Synaptic Transmission
 - 1.2.5. Effects of Drugs on Synaptic Transmission
- 1.3. The Nervous System and Neurons
 - 1.3.1. Nervous System
 - 1.3.2. Nervous Tissue Cells
 - 1.3.3. Types of the Nervous Tissue
 - 1.3.4. The Encephalon
 - 1.3.5. Formation of the Encephalon
 - 1.3.6. The Brain
- 1.4. Genetics and Neurodevelopment
 - 1.4.1. Genetics and Brain
 - 1.4.2. Pregnancy and Brain
 - 1.4.3. Undifferentiated Neurons
 - 1.4.4. Causes of Brain Damage
- 1.5. Neurobiological Principles of the Brain
 - 1.5.1. Brain Development
 - 1.5.2. Localizationism
 - 1.5.3. Lateralization
 - 1.5.4. Different Brains
- 1.6. Hemispheric Differences
 - 1.6.1. Brain Asymmetry of the Left and Right Hemispheres
 - 1.6.2. Interhemispheric Differences in Language



- 1.7. Plasticity and Brain Development
 - 1.7.1. Neural Development
 - 1.7.2. Age vs Neuronal Plasticity
 - 1.7.3. Plasticity Response
- 1.8. The Vision
 - 1.8.1. Light
 - 1.8.2. The Organ of Vision: The Eye
 - 1.8.3. Photoreceptors and Phototransduction
 - 1.8.4. The Visual Pathways
 - 1.8.5. The Visual Cortex
 - 1.8.6. Visual Disorders
- 1.9. Myelination
 - 1.9.1. Objectives
 - 1.9.2. Propagation of the Electrical Signal
 - 1.9.3. Role of Myelin in Neurons
 - 1.9.4. Myelogenesis
- 1.10. Brain Neurochemistry
 - 1.10.1. Objectives
 - 1.10.2. Interneuronal Chemical Communication
 - 1.10.3. Neurohormones
 - 1.10.4. Functions of Neurohormones



Do not miss the opportunity and join this flexible and 100% online Postgraduate Certificate with which you will become a true expert in the approach and applications of Neurosciences in Psychology!"

03

Teaching objectives

This program is committed to providing its graduates with a thorough understanding of the biological principles of behavior and cognition. Through clear academic objectives, the Postgraduate Certificate qualifies psychologists on the structure and function of the nervous system, the mechanisms of neuronal communication and brain development from its earliest stages. In addition, it focuses on hemisphere differentiation, myelination and the impact of neurohormones on emotional regulation. Therefore, after completing their studies, they will be able to apply this knowledge in complex therapeutic contexts, preparing them to analyze and address diverse needs in the clinical setting.



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TECH's goal is to turn you into a psychologist with comprehensive knowledge about research advances in Neurosciences. Join this academic journey at TECH right now!”



General Objectives

- ♦ Understand the neurobiological and structural principles of the nervous system
- ♦ Identify neural communication processes and their impact on cognitive function
- ♦ Analyze brain development and its genetic and environmental influences
- ♦ Define the neurochemistry of the brain to understand emotional and behavioral regulation

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You will delve into the characteristics of the cerebral hemispheres in order to determine whether or not their functioning is involved in the psychological processes that affect your patients”





Specific Objectives

- ♦ Describe the structure and function of neurons and glial cells
- ♦ Explain the process of synapses and the transmission of signals between neurons
- ♦ Examine the development of the brain from pregnancy and its conditioning factors
- ♦ Differentiate the functions and characteristics of the brain hemispheres
- ♦ Explore the importance of myelination in the efficiency of the nervous system
- ♦ Interpret the role of neurohormones in brain communication and regulation

04

Study Methodology

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

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



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

The student: the priority of all TECH programs

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

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

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

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*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.

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

Case Studies and Case Method

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

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

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



Relearning Methodology

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

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

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

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



A 100% online Virtual Campus with the best teaching resources

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

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

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

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



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

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

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

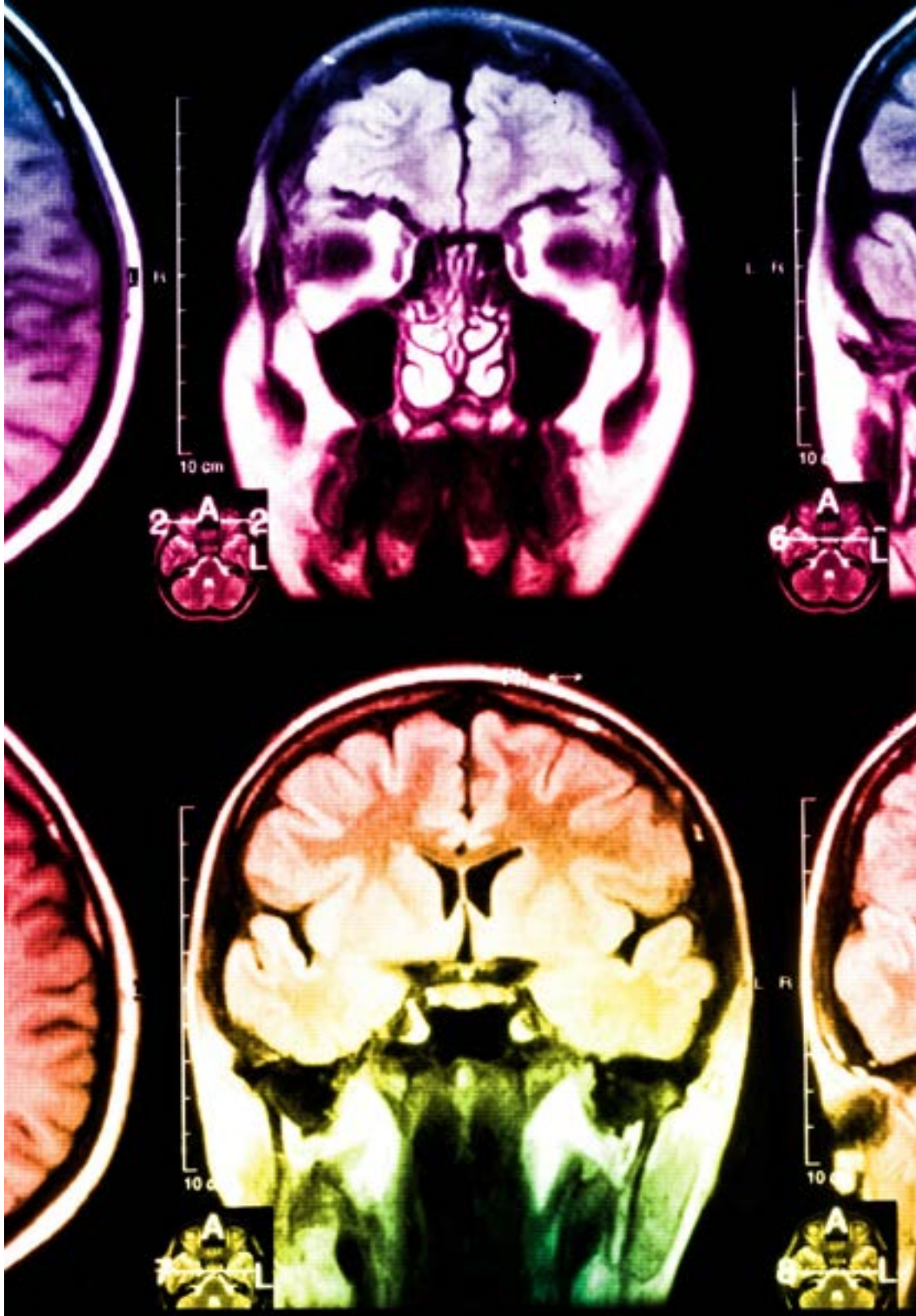
The university methodology top-rated by its students

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

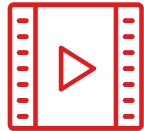
The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

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

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



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



Study Material

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

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



Practicing Skills and Abilities

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



Interactive Summaries

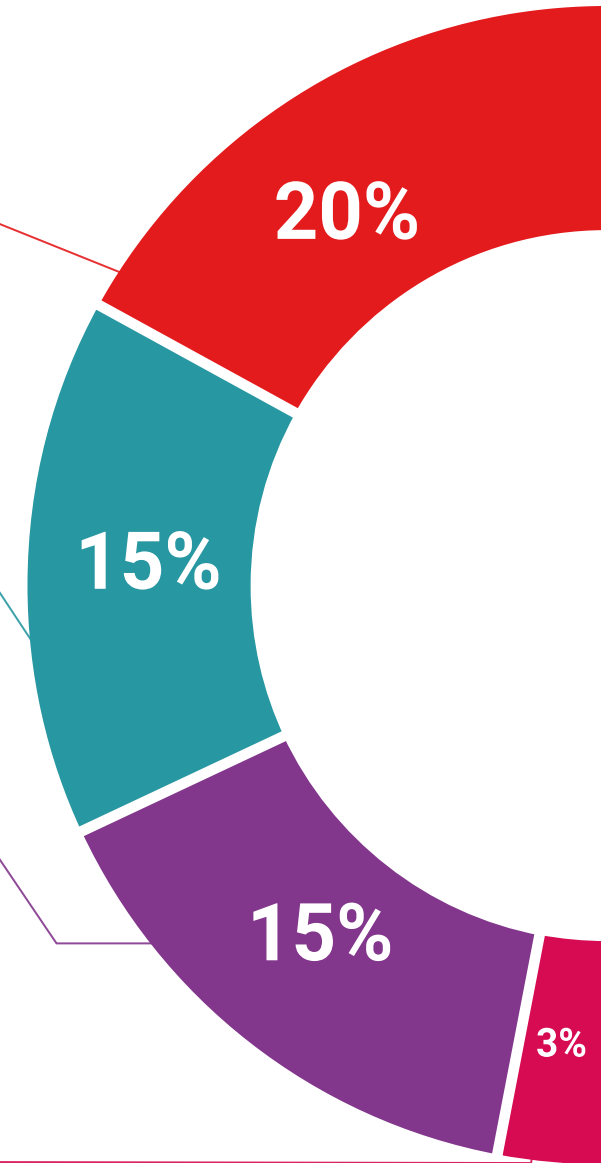
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

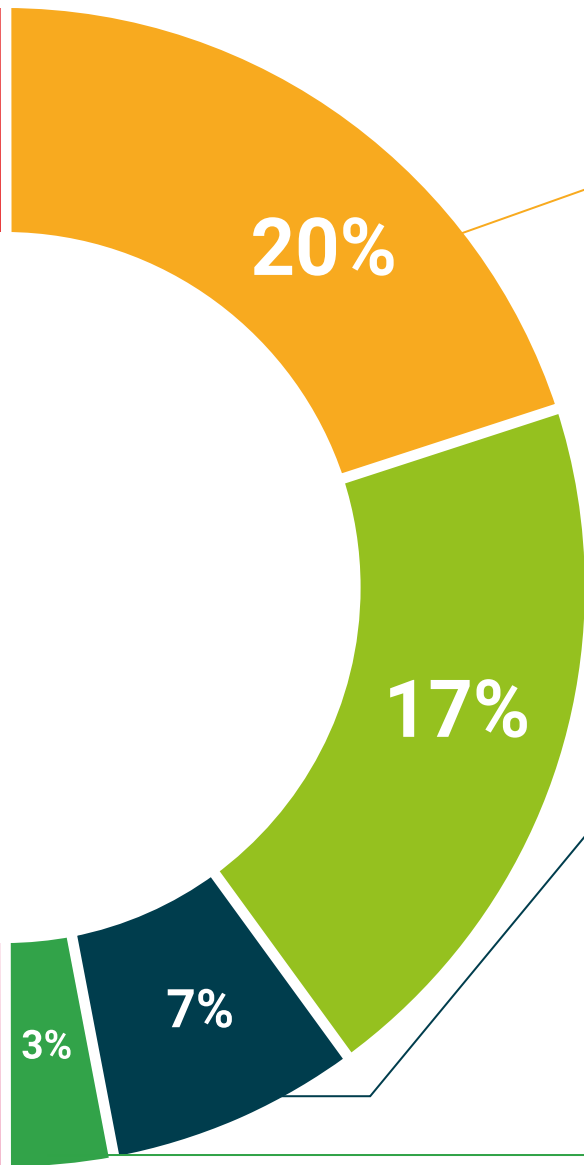
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





Case Studies

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



Testing & Retesting

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



Classes

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



Quick Action Guides

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



05

Certificate

The Postgraduate Certificate in Neurosciences in Psychology 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 **Postgraduate Certificate in Neurosciences in Psychology** 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.

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Accreditation: **6 ECTS**





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