

Postgraduate Certificate Mathematical Learning Difficulties (MLD)



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

Website: www.techtute.com/us/psychology/postgraduate-certificate/mathematical-learning-difficulties-mld

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01

Introduction to the Program

Understanding why some children face persistent obstacles when confronted with mathematical thinking is key to intervening effectively. Given that difficulties in this area directly impact academic performance, self-esteem, and future academic trajectories, it is essential to address them with specialized knowledge. In response to this need, TECH Global University has designed this university program that will offer an up-to-date and rigorous perspective on the cognitive, emotional, and contextual factors influencing the learning of Mathematics. With a 100% online methodology, this academic proposal will be tailored to the real needs of psychologists who support educational processes in diverse contexts.



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You will act with precision in addressing Dyscalculia and other numerical difficulties, integrating neuropsychological and contextual approaches to transform the performance of your patients and students”

Mathematical skills are fundamental to cognitive and academic development. However, not all students are able to access them in the same way. In many cases, they face persistent barriers that go beyond mere lack of practice or motivation. In fact, these difficulties may be linked to neuropsychological, emotional, or pedagogical factors that require an expert and up-to-date perspective to be detected and properly addressed.

For this reason, understanding the origin and manifestation of these challenges is crucial for those supporting educational and therapeutic processes. Therefore, TECH has developed this comprehensive Postgraduate Certificate in Mathematical Learning Difficulties (MLD). Through an integrated approach, this program will delve into the theoretical and practical foundations that allow for the identification of different types of academic problems, distinguishing between temporary low competence and more structured conditions such as Dyscalculia.

Throughout the course, diagnostic tools, intervention strategies, and evidence-based methodological resources will be explored. In this way, professionals will gain a comprehensive understanding of the phenomenon, addressing emotional and contextual factors that affect student performance.

Additionally, this university qualification has been designed by a multidisciplinary team of specialists in Psychology, Neuroeducation, and Didactics, ensuring a broad and deep approach. The structure of the program will also allow for flexibility, without compromising high academic rigor and demands. Thanks to this, graduates will be able to refine their clinical and educational practice, improve early detection of complex cases, and apply more effective and personalized support strategies. All of this is delivered through a digital format, providing the convenience of accessing content from anywhere, at any time.

This **Postgraduate Certificate in Mathematical Learning Difficulties (MLD)** contains the most complete and up-to-date program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Education and Psychology
- ♦ 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



You will understand the underlying causes of systematic errors in Mathematical Learning and transform your intervention into a more conscious and effective psychopedagogical process”

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TECH and its innovative Relearning system will help you internalize concepts such as the reversibility of thought or the conservation of quantity with minimal effort. You will train more efficiently and sustainably!.

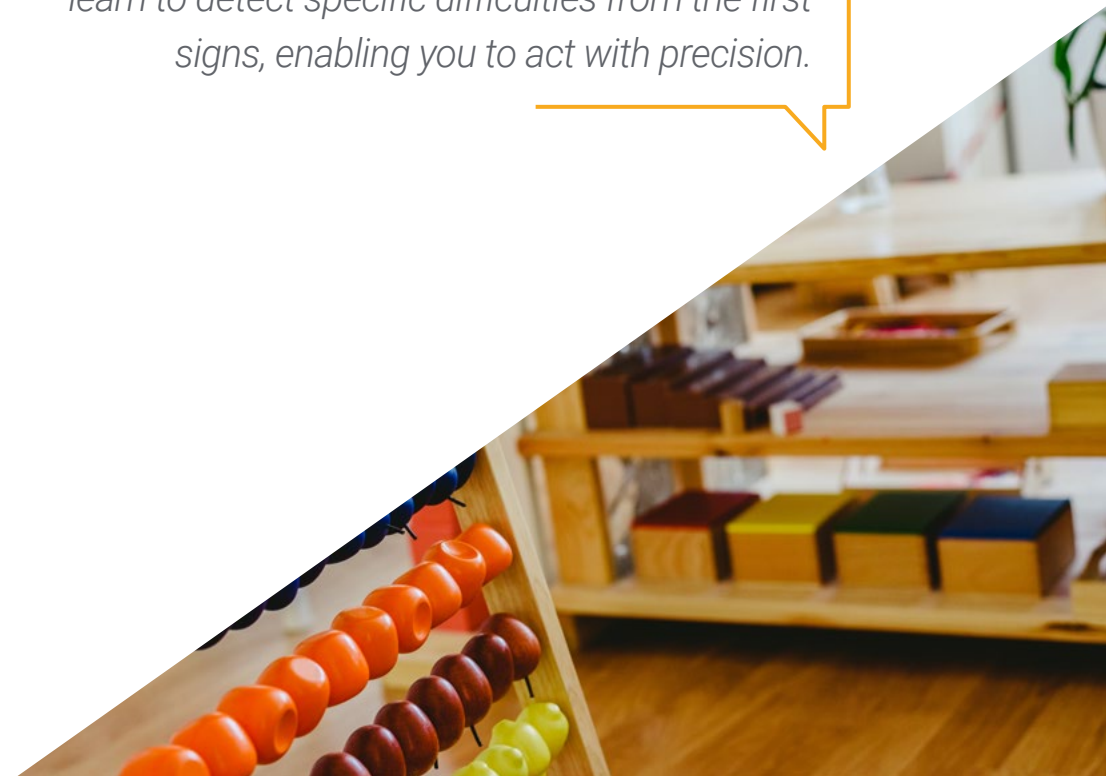
The faculty includes professionals from the fields of Education and Psychology, who contribute their practical experience to this program, along with renowned specialists from leading associations and prestigious universities.

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.

Thanks to the 100% online methodology, you will be able to access the most up-to-date content on Neuroeducation in Mathematics without interrupting your work or personal commitments.

You will connect theory and practice in a university program designed to transform your professional performance! In this way, you will learn to detect specific difficulties from the first signs, enabling you to act with precision.



02

Why Study at TECH?

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



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

The world's best online university, according to FORBES

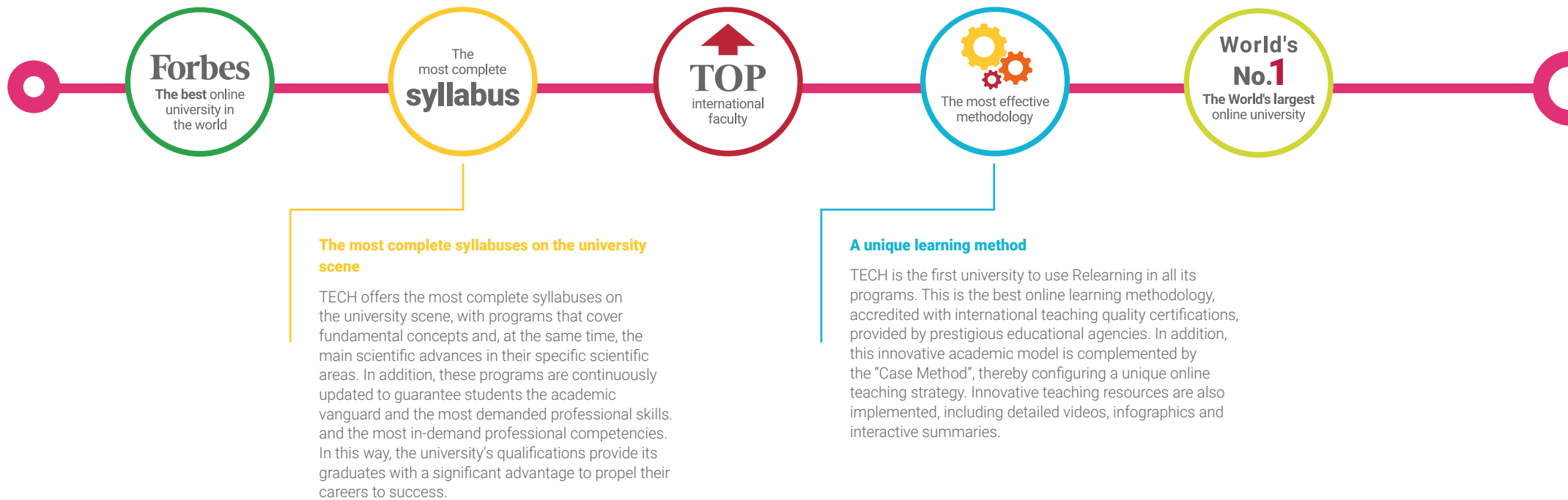
The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer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

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio 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.

The world's largest online university

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



The official online university of the NBA

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

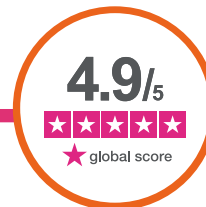
Leaders in employability

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



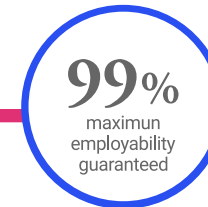
Google Premier Partner

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



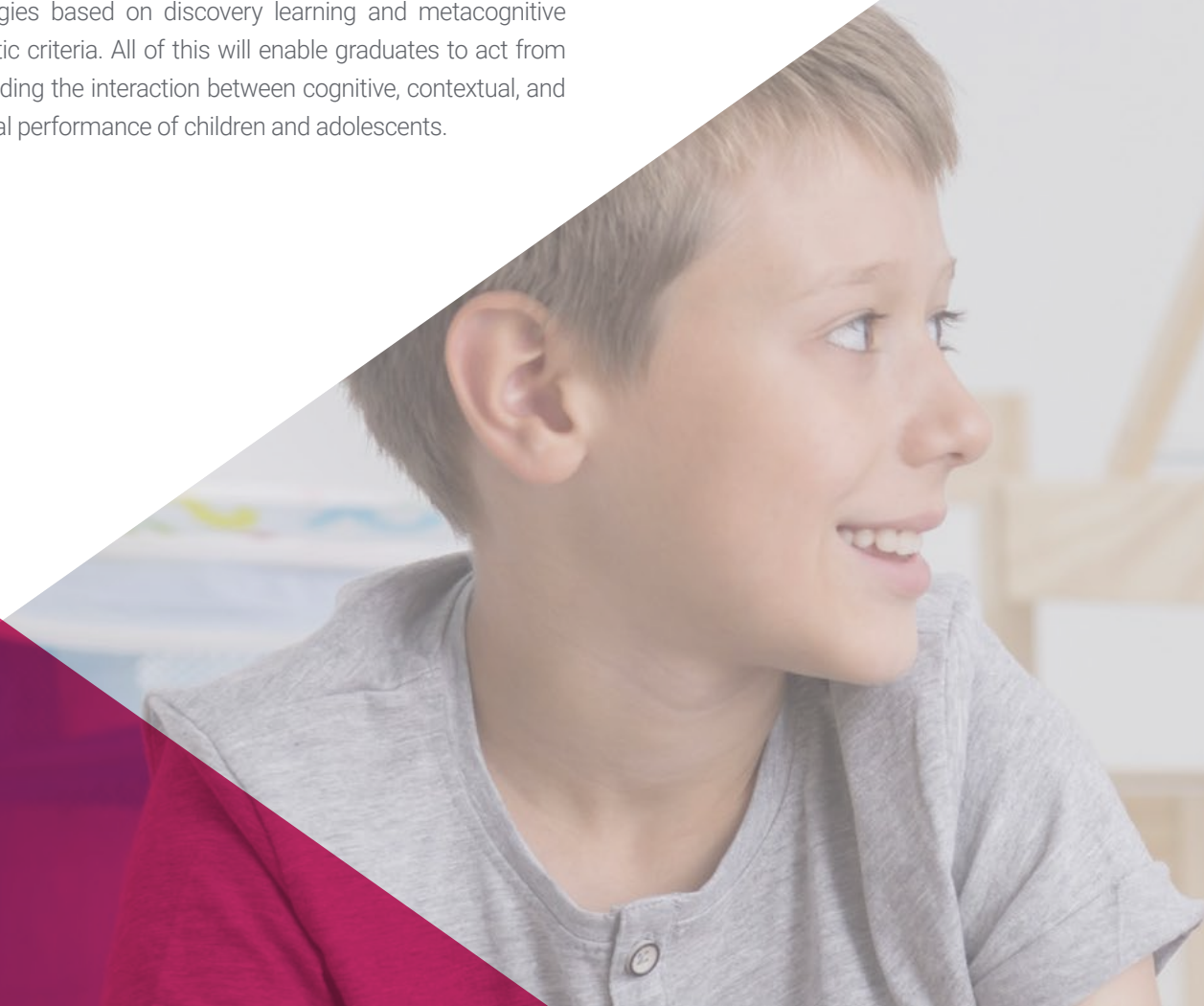
The top-rated university by its students

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



03 Syllabus

The didactic materials in this academic experience will delve into the neuropsychological and pedagogical foundations that explain Mathematical Learning Difficulties. Through the analysis of key concepts such as the reversibility of thought or problem-solving, professionals will acquire essential tools to detect, assess, and precisely address these difficulties. Additionally, they will explore intervention strategies based on discovery learning and metacognitive thinking, alongside updated diagnostic criteria. All of this will enable graduates to act from an integrative perspective, understanding the interaction between cognitive, contextual, and emotional factors in the mathematical performance of children and adolescents.



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You will refine your use of metacognitive strategies and discovery-based teaching to promote mastery of number series and algorithms”

Module 1. Mathematical Learning Difficulties (MLD)

- 1.1. Introduction
- 1.2. Mathematical Knowledge and Its Basic Concepts
 - 1.2.1. Qualitative and Quantitative Concept
 - 1.2.2. Spatio-Temporal Concepts
- 1.3. Mathematics and the Processes Involved in Its Learning
 - 1.3.1. Classification
 - 1.3.2. Seriation
 - 1.3.3. Correspondence
 - 1.3.4. Conservation of the Object or Substance
 - 1.3.5. Reversibility of Thought
 - 1.3.6. Cognitive and Meta-Cognitive Strategies
 - 1.3.6.1. Directive Model Strategies
 - 1.3.6.2. Counting
 - 1.3.6.3. Numerical Facts
- 1.4. The Teaching-Learning Process of Mathematics
 - 1.4.1. Subitizing and Counting: Principle of One-to-One Correspondence, Stable -Order, Cardinality, Abstraction and Irrelevance of Order
 - 1.4.2. Learning Numerical Series: Acquisition, Elaboration and Consolidation
 - 1.4.3. Learning Problem Solving: Location of the Variable, Semantic Structure, etc
 - 1.4.4. Learning Algorithms
- 1.5. Prevention of Learning Difficulties in Mathematics
 - 1.5.1. Protective Factors
 - 1.5.2. Risk Factors
 - 1.5.3. Strategies for the Promotion of Learning Mathematics





- 1.6. Math and Its Difficulties
 - 1.6.1. Definition of Learning Difficulties in Mathematics
 - 1.6.2. Learning Difficulties in Mathematics Related to: The Nature of Math Itself, The Organization and Methodology of Teaching, Related to the Student
 - 1.6.3. Common Errors: Problem Solving, in the Steps of the Algorithm
 - 1.6.4. Dyscalculia as a Specific Learning Difficulty: Semantic, Perceptive, Procedural
 - 1.6.5. Causes of Mathematics Learning Difficulty (MLD)
 - 1.6.5.1. Contextual Factors
 - 1.6.5.2. Cognitive Factors
 - 1.6.5.3. Neurobiological Factors
- 1.7. Diagnosis and Evaluation of Mathematical Learning Difficulties (MLD)
 - 1.7.1. Standardized Tests
 - 1.7.2. Non-Standardized Tests
 - 1.7.3. The Comprehensive Education Evaluation and Diagnosis
- 1.8. Addressing Learning Difficulties: Mathematical Learning Difficulties
 - 1.8.1. Principles of Care
 - 1.8.2. Teaching Concepts and Procedures
 - 1.8.3. Problem-Solving Strategies
 - 1.8.4. Discovery Teaching Strategies
- 1.9. Activities for the Integration of Knowledge and Its Practical Application
- 1.10. Recommending Readings
- 1.11. Bibliography

04

Teaching Objectives

This Postgraduate Certificate will strengthen psychologists' ability to analyze and intervene in Mathematical Learning Difficulties. Through the comprehensive curriculum, you will understand the processes involved in the development of logical-mathematical thinking, detect early signs of disruption, and apply effective strategies to improve academic performance. Additionally, decision-making skills will be encouraged, along with the use of adaptive resources and the implementation of student-centered pedagogical approaches. In this way, graduates will develop a more precise and inclusive practice that adapts to the cognitive and emotional particularities of each case.



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You will strengthen your competence in designing interventions centered on students of all ages, combining emotional analysis and logical-mathematical performance”



General Objectives

- Understand the theoretical, methodological, and contextual foundations that support Attention to Diversity and intervention in Learning Difficulties
- Analyze the different types of Learning Difficulties from a critical, integrative, and multidisciplinary perspective
- Develop skills for diagnosis, assessment, and educational intervention tailored to students' specific needs
- Apply innovative pedagogical strategies that promote inclusion and equity in the school environment
- Integrate knowledge of language development, reading, writing, and mathematical thinking as key components of learning
- Design inclusive and sustainable educational proposals, grounded in evidence and adapted to contemporary challenges





Specific Objectives

- ♦ Analyze the main difficulties that affect mathematical learning in children and adolescents
- ♦ Develop inclusive didactic proposals to facilitate the acquisition of logical-mathematical thinking



You will acquire key skills to support your patients with specific needs, recognizing patterns of difficulty and implementing reasonable and effective adjustments”

05

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.

“*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.

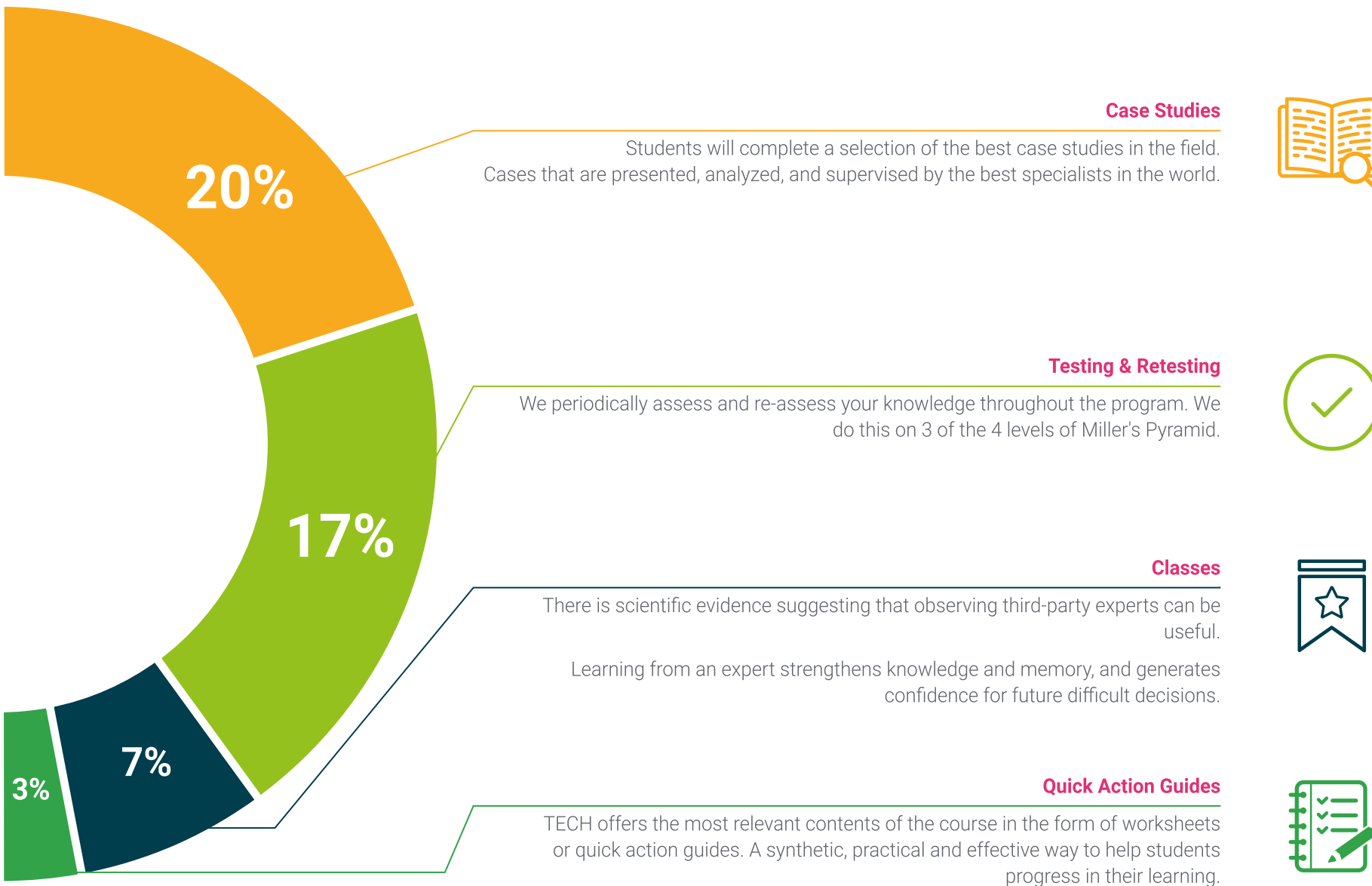
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





06

Teaching Staff

In line with its commitment to academic excellence, TECH assembles its teaching teams through a rigorous selection of specialists with extensive experience in the psychoeducational field. Based on this, the Postgraduate Certificate includes professionals recognized for their work in detecting, assessing, and intervening in Mathematical Learning Difficulties. Each of them has contributed innovative didactic materials aligned with the latest advances in neuroeducation and pedagogy. This collaboration provides an enriching academic experience, focused on professional reality and aimed at developing competencies that address the current challenges in educational and clinical contexts.





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You will have the support of experts in neuroeducation and didactics, whose contributions to innovative materials will enrich each didactic resource. Enroll now and take advantage of a high-quality academic experience!”

Management



Dr. Moreno Abreu, Milagros Josefina

- ♦ Pedagogue specializing in Learning Difficulties
- ♦ Organizational Consultant, Los Sauces Medical and Surgical Unit
- ♦ Speech therapist. Private Practice
- ♦ Master's Degree in Health Education
- ♦ Diploma in Research Methodology
- ♦ Degree in Education with a specialization in Learning Difficulties and Preschool
- ♦ PhD in Pedagogical Sciences
- ♦ Higher University Technician in Speech Therapy
- ♦ Graduate Professor: Research Methodology I, Design of measurement and evaluation instruments
- ♦ Graduate Professor. Academic Reading and Writing

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07

Certificate

The Postgraduate Certificate in Mathematical Learning Difficulties (MLD) 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 Mathematical Learning Difficulties (MLD)** 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: **Postgraduate Certificate in Mathematical Learning Difficulties (MLD)**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



Postgraduate Certificate
Mathematical Learning
Difficulties (MLD)

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

Postgraduate Certificate Mathematical Learning Difficulties (MLD)

