

# Postgraduate Certificate Mathematical Learning Difficulties (MLD)



## 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

Website: [www.techtute.com/us/psychology/postgraduate-certificate/mathematical-learning-difficulties-mld](http://www.techtute.com/us/psychology/postgraduate-certificate/mathematical-learning-difficulties-mld)

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# 01

# Introduction

Learning maths can be a big problem for many children and adults. Psychologist must therefore possess the necessary skills and competencies to help them overcome their difficulties. On this program, psychology professionals will learn about the main techniques to improve the mathematics learning process. This compendium of knowledge will help professionals to effectively establish themselves in the sector, and offer patients more personalized attention geared towards their individual needs.





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*Psychologists must have the skills necessary to help their patients learn mathematics”*

Diversity is understood as the differences that students present in academic learning, differences in terms of aptitudes, interests, motivations, abilities, maturation rates, learning styles, previous experiences and knowledge, social and cultural environments, etc. These aspects make up student typologies and profiles that should largely determine educational planning and action.

The vision proposed by the emerging psychological paradigm is inclusive and based on a biopsychosocial model that contemplates attention to diversity with a comprehensive approach aimed at the entire community. Psychologists, especially child psychologists, as well as related educational and social-health professions, need to know how to recognize this type of patient and identify their needs and have the knowledge and tools to intervene at a personal, socio-familial and, above all, educational level.

This program responds to the demand for continuous professional development in this area and is aimed primarily at child psychologists. With this program, psychologists will acquire competencies to manage learning difficulties and diversity in the social context, and to adapt attention to diversity plans and educational projects for use in centers.

At the same time, there is a growing social need for an educational system which promotes democracy, equality and equity; without segregation or discrimination due to differences and enables inclusion for all within a framework of diversity awareness.

This Postgraduate Certificate has been developed by an academic committee composed of specialists with experience in the clinical, educational and social fields. These professionals apply their expertise to support the professional development needs of Psychologist working in interdisciplinary and multidisciplinary teams, school management structures and specialized care. They have conducted extensive research and have designed a syllabus that is in line with academic objectives.

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:

- ♦ Practical cases presented by experts in Mathematical Learning Difficulties
- ♦ Graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ The latest developments relating to Mathematical Learning Difficulties
- ♦ Practical exercises where self-assessment can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies for Mathematical Learning Difficulties
- ♦ 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



*This 100% online Postgraduate Certificate is the perfect opportunity to learn how to address Mathematical Learning Difficulties (MLD)*

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*Here you have a program with a multitude of practical cases that will facilitate your learning”*

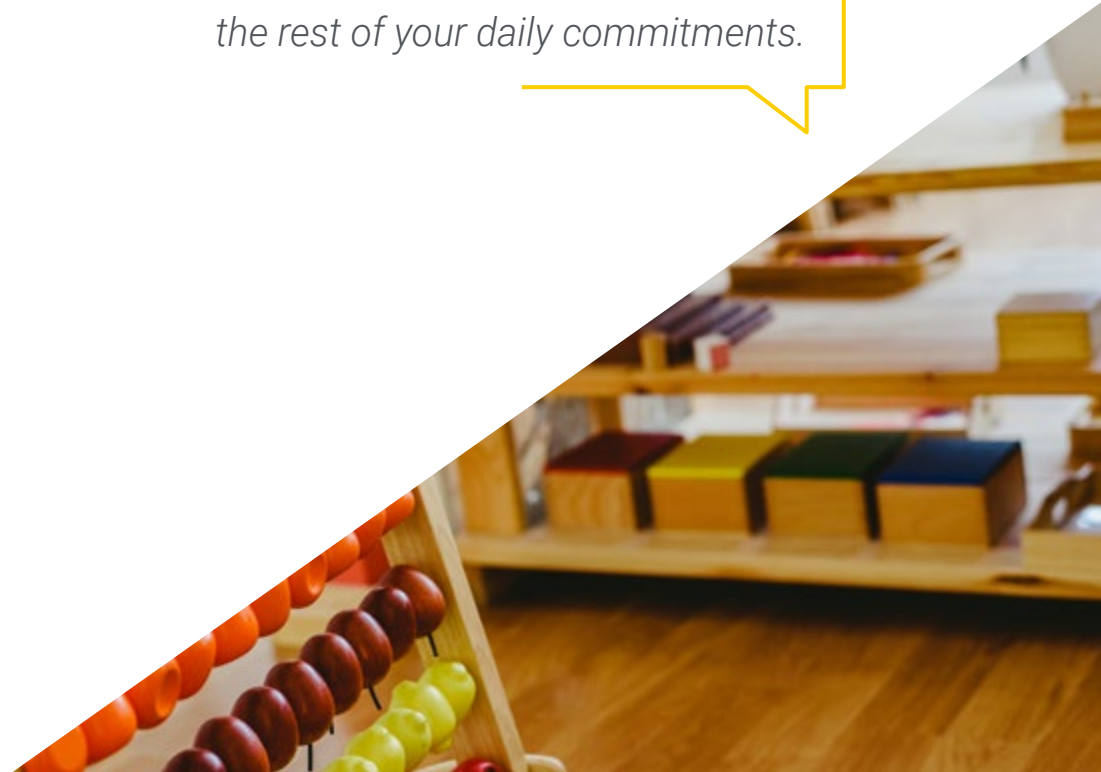
The program's teaching staff includes professionals from the field of psychology and education, who bring their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide professionals with situated and contextual learning, i.e., a simulated environment that will provide immersive education designed to prepare them for real situations.

This program is designed around Problem-Based Learning, whereby the specialist must try to solve the different professional practice situations that arise throughout the program. To do so, professionals will be assisted by an innovative interactive video system developed by renowned and experienced experts in Mathematics Learning Difficulties (MLD).

*Our multimedia content will make it easier for you to access information. You will be able to update your knowledge in a straightforward and practical way from any device with an Internet connection.*

*You can organize your study sessions at your own pace, organizing your own schedule and combining it with the rest of your daily commitments.*



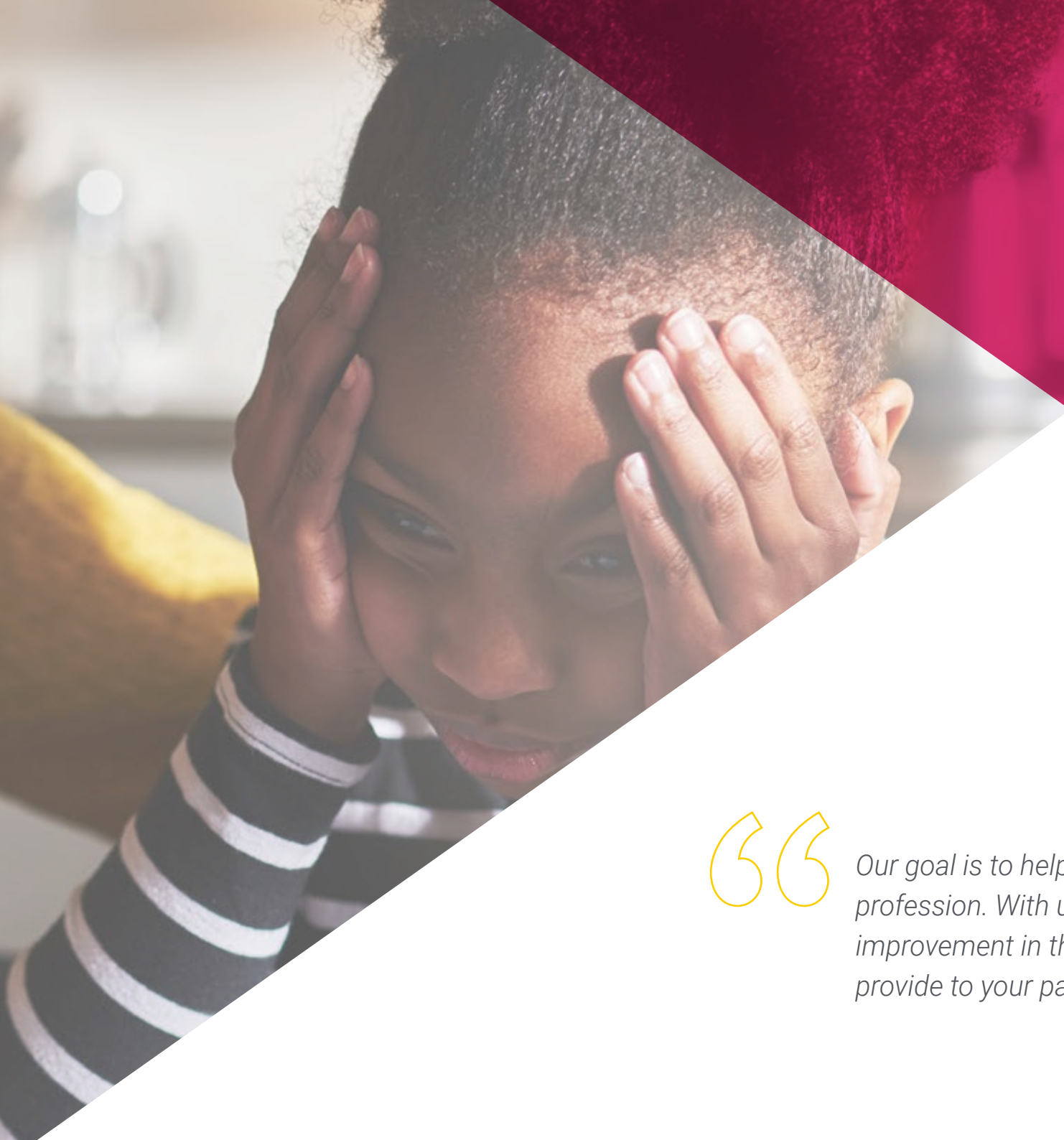
# 02

# Objectives

This program is designed to equip professionals working with Learning Difficulties, with scientific-technical knowledge skills and values that promote the development of students' core competencies. It will help them to address any problems in their professional context within a framework of educational inclusion now demanded in societies worldwide. Thus, the main objective of this program is to provide psychologists with a superior level of competence and enable them to support children and adolescents with Mathematical Learning Difficulties more effectively.







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*Our goal is to help you be the best in your profession. With us, you will notice an improvement in the level of care you can provide to your patients”*



### General Objectives

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- ♦ Increase theoretical-practical and didactic-methodological knowledge related to psychology, pedagogy and teaching in relation to students with LD in the context of diversity, with an innovative, creative and integral vision for school management
- ♦ Develop professional skills, abilities and competences for the scientific management of the comprehensive educational care of schoolchildren with learning difficulties within the framework of diversity with a high level of expertise

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*We are the biggest online university, and we are committed to equipping you for success”*





## Specific Objectives

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- ♦ Analyze the essential concepts and processes involved in learning math in order to consider them in diagnosis, assessment and teaching
- ♦ Reflect on the different methods of teaching math and their shortcomings, as well as the criteria for their selection and application for different students and contexts
- ♦ Implement actions for the promotion of math and prevention of difficulties, incorporating the main educational agencies
- ♦ Identify difficulties in mathematics learning through their characterization, diagnosis and evaluation, considering the relationship with the family and social context
- ♦ Develop comprehensive educational support plans for students or groups of students with learning difficulties based on their attributes, motivations, personal potential, family situation and other circumstances

# 03

# Course Management

The leading specialists in Mathematical Learning Difficulties (MLD) have come together to create this Postgraduate Certificate which offers students a transdisciplinary education which allows them to transfer learning across different areas. This team of professionals, aware of the importance of professional development in this field, has designed this comprehensive program aimed at enhancing the psychologist's skills.





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*We offer you a team of the most qualified professionals in the field. They will teach you to improve your skills as a psychologist”*

## Management



### Dr. Moreno Abreu, Milagros Josefina

- ♦ Pedagogue
- ♦ PhD in Pedagogical Sciences
- ♦ Master's Degree in Health Education
- ♦ Diploma in Research Methodology
- ♦ Degree in Education With Major in Learning Difficulties
- ♦ Degree in Preschool Education
- ♦ Higher University Technician in Speech Therapy

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H yperactivity  
D isorder?



# 04

## Structure and Content

The program has been structured by a team of experts in Learning Difficulties and Attention to Diversity who have combined all their knowledge to offer the best academic option on the market, with the most up-to-date and rigorous content that can be found on the subject. This compendium of knowledge will empower professionals to work more effectively with children and adolescents in different types of social and health care institutions.







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*This Postgraduate Certificate is the best option available, with the most up-to-date and rigorous content on the market”*

## Module 1. Mathematical Learning Difficulty (MLD)

- 1.1. Introduction
- 1.2. Mathematical Knowledge, Basic Concepts
  - 1.2.1. Concept of Quantity and Quantifiers
  - 1.2.2. Space-Time 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. Directional 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; 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 Mathematical Learning Difficulty (MLD)
  - 1.6.5.1. Contextual Factors
  - 1.6.5.2. Cognitive Factors
  - 1.6.5.3. Neurobiological Factors
- 1.7. Diagnostics and Assessment of Mathematical Learning Difficulty (MLD)
  - 1.7.1. Standardized Tests
  - 1.7.2. Non-Standardized Tests
  - 1.7.3. Comprehensive Educational Diagnosis-Assessment
- 1.8. Attention to Learning Difficulties in Mathematics
  - 1.8.1. Principles of Care
  - 1.8.2. Teaching of 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 Reading
- 1.11. Bibliography

“*A unique, key, and decisive educational experience to boost your professional development*”



05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

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



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

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH the psychologist experiences a way of learning that is shaking the foundations of traditional universities around the world.*



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

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

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

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



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

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

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





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

This methodology has trained more than 150,000 psychologists with unprecedented success in all clinical specialties. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

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

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



This program offers the best educational material, prepared with professionals in mind:



#### 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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current psychology. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

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

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



#### Additional Reading

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





#### Expert-Led Case Studies and Case Analysis

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



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

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

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



#### Quick Action Guides

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



06

# 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 Postgraduate Certificate without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **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.

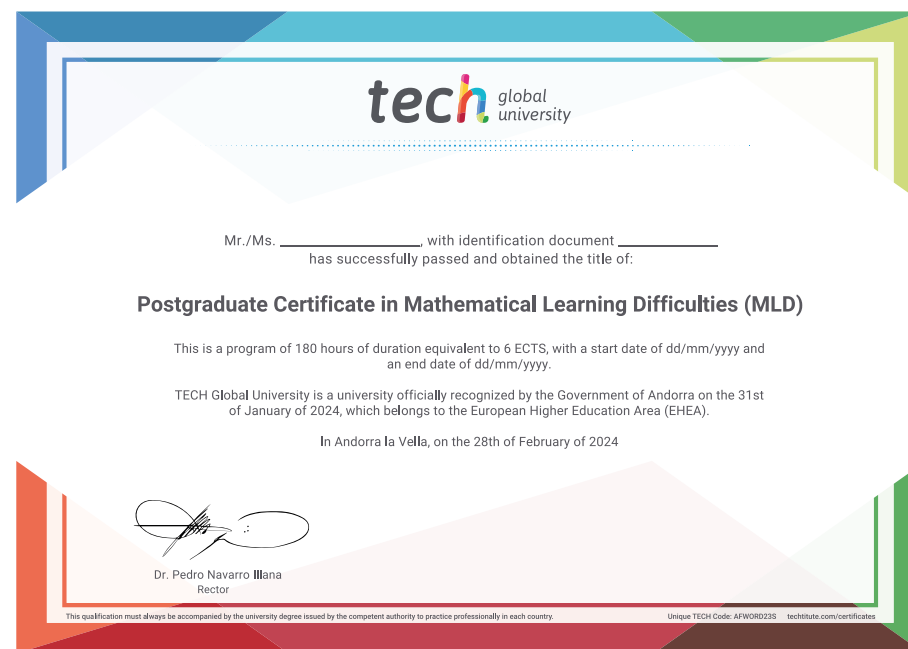
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

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 language  
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

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