

# Postgraduate Certificate Mathematical Learning Difficulties (MLD)





## Postgraduate Certificate

### Mathematical Learning Difficulties (MLD)

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

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

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# 01

# Introduction

Learning maths can be a big problem for many students. This makes it necessary for teachers to have the necessary skills to help them make progress in their weaknesses. In this course, professionals will learn the main techniques to improve the learning process for mathematics.



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*This Postgraduate Certificate will allow you to delve into the world of Learning Difficulties, while obtaining a qualification certified by TECH Technological University"*

Diversity is understood as the differences that students present in school 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 perspective from the emerging educational paradigm must be inclusive and based on a biopsychosocial model that contemplates attention to diversity from a comprehensive approach aimed at the entire educational community. Teachers, at all educational stages, and related professionals in both the educational and socio-health fields need to know the characteristics of these students, know how to identify their needs and have the knowledge and tools to intervene at a personal, socio-familial and, above all, educational level.

This training responds to the demand of educational agents, focusing on early childhood, primary, secondary and post-compulsory education teachers. With this course, the teacher will acquire competencies to manage learning difficulties and diversity in the educational context, adjust the attention to diversity plans and the educational projects of the centers.

At the same time, social demands are greater and more numerous on education systems globally, in order to achieve democracy, equality and equity in schools; without segregation, discrimination due to differences and capable of accommodating everyone within the framework of recognition of diversity.

The design of the Postgraduate Certificate was developed by an academic committee composed of specialists with experience in the clinical, educational and social fields. These professionals bring their expertise to support the postgraduate education needs of teachers working in interdisciplinary and multidisciplinary teams, school management structures and specialized care. In this sense, they carried out a whole process of research and integration of criteria based on the objectives set for the academic program.

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

- ♦ Practical cases presented by experts in Mathematical Learning Difficulties
- ♦ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Latest information on Mathematical Learning Difficulties
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Algorithm-based interactive learning system for decision-making in the situations that are presented to the student.
- ♦ 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 to deal with Mathematical Learning Difficulties”*

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*Here you will find a training course with a multitude of practical cases that will facilitate your learning”*

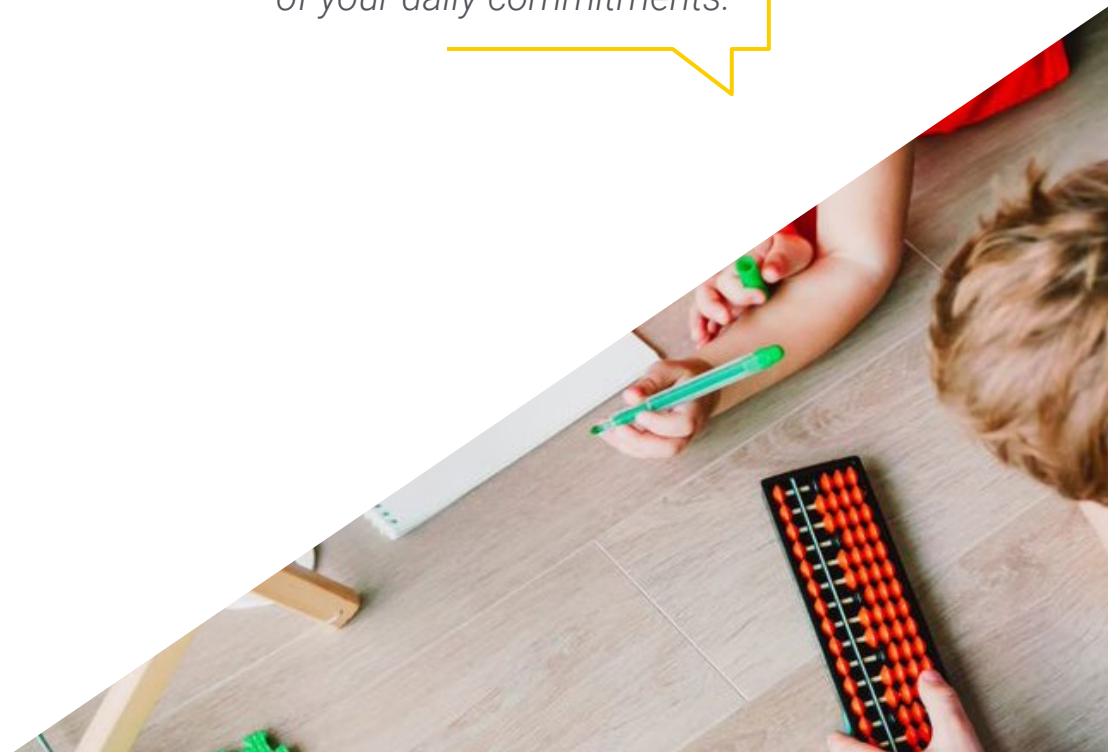
Its teaching staff includes , a professionals from the field of vaccines in nursing, who bring the experience of their work to this training, as well as recognised specialists from leading scientific societies.

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 training program designed to train in real situations.

This program is designed around Problem Based Learning, where the medical professional must try to solve the different professional practice situations that arise during the course. To do so, the teacher will be assisted by an innovative interactive video system created by renowned and experienced experts in Mathematical Learning Difficulties.

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

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



# 02

# Objectives

This training is designed to train professionals in the field of Learning Difficulties through educational-technical knowledge skills and values that promote the development of basic competencies in graduates. It will help them to address the problems in their professional context within the framework of educational inclusion demanded in today's societies worldwide.







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*Our goal is to help you be the best in your profession. With us you will see how you advance in the care of your students”*



## General Objectives

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- ♦ Increase theoretical-practical and didactic-methodological knowledge related to psychology, pedagogy and didactics 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 management of the comprehensive educational care of schoolchildren with learning difficulties within the framework of diversity with a high level of specialization.



*We are the biggest online university and we are committed to training 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 in different students and contexts
- ♦ Implement actions for the promotion of math and prevention of its difficulties incorporating the main educational agencies
- ♦ Identify learning difficulties in learning math through their characterization, diagnosis and evaluation, considering its relationship with the family and social context
- ♦ Develop comprehensive educational care plans for students or groups of students with learning difficulties based on their personal, family and contextual characteristics, motivations and their potential



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 between different areas.





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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 teacher”*

## Management



### **Dr. Moreno Abreu, Milagros Josefina**

- 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

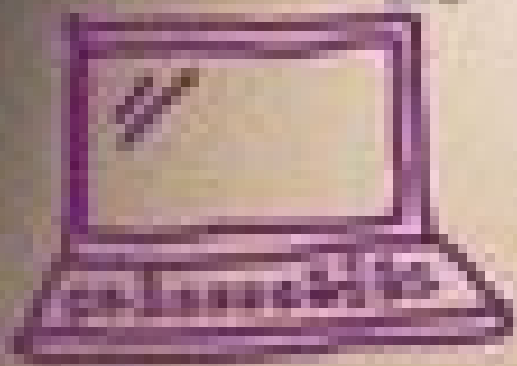
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04

# Structure and Content

The structure of the program has been designed by a team specialized in Learning Difficulties and Attention to Diversity that has united all its knowledge to offer the best study option on the market since it has the most up-to-date and rigorous content that can be found on this subject.





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*This Postgraduate Certificate is the best option that you will be able to find, 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 and its Basic Concepts
  - 1.2.1. Qualitative and Quantitative Concept
  - 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. 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 Solving Problems and in the Steps of the Algorithm
  - 1.6.4. Dyscalculia as a Specific Learning Difficulty: Semativ, 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 Evaluation of Mathematical Learning Difficulty (MLD)
  - 1.7.1. Standardized Tests
  - 1.7.2. Non-Standardized Tests
  - 1.7.3. The Integral Education Evaluation and Diagnosis
- 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 Readings
- 1.11. Bibliography



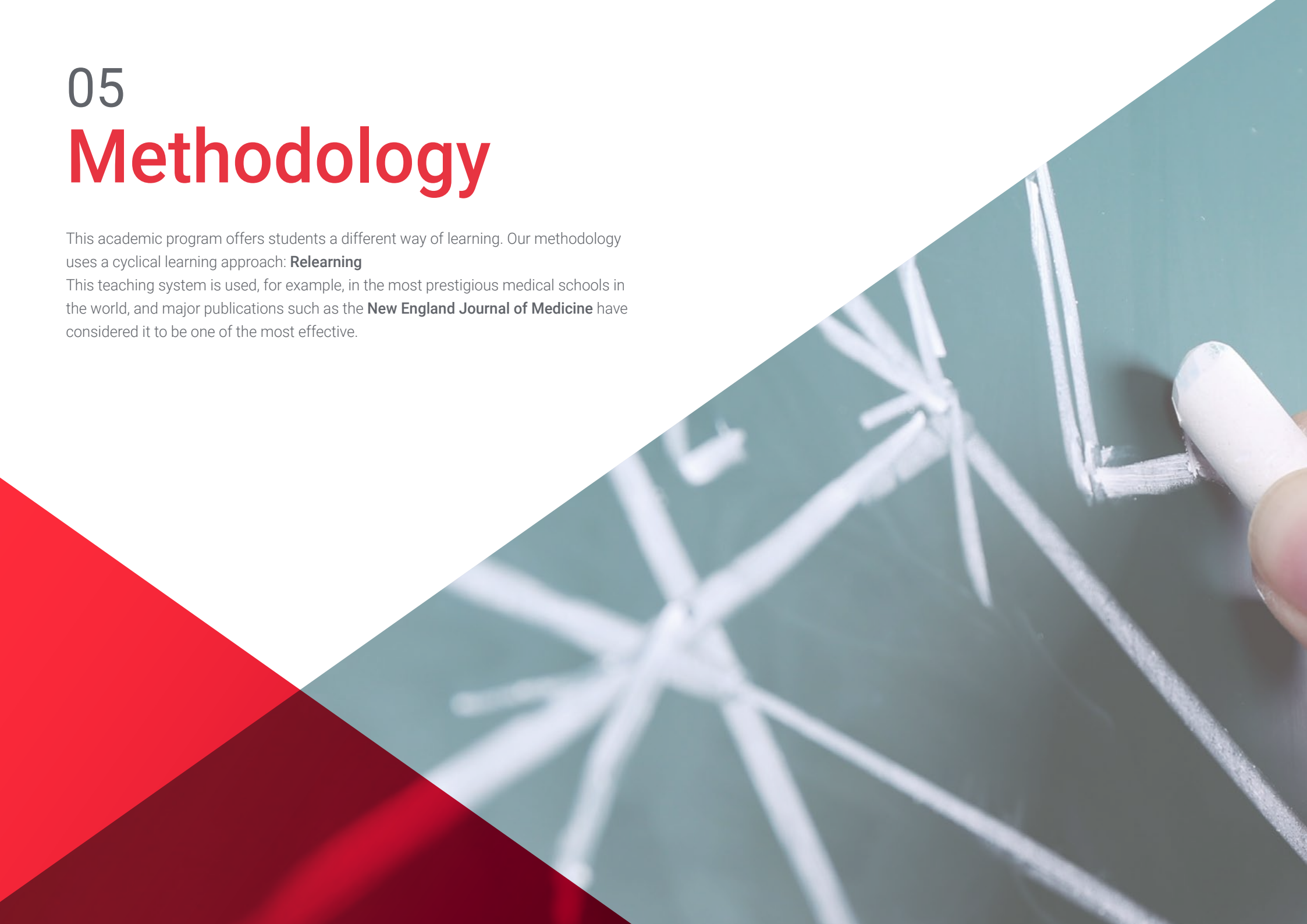
*Access key training that will help you advance your career"*

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 Education School we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

*With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



*It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.*

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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. Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
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 Harvard case method with the best 100% online teaching methodology available: Relearning.

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



*Educators 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).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*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.*

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 specialist educators who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the 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.



### Educational Techniques and Procedures on Video

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



### 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 you, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Technological University.





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*Successfully complete this training and receive your diploma without the hassle of travel or paperwork"*

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

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by TECH Technological University via tracked delivery\*.

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

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

Official N° of Hours: **150 h.**



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

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



## Postgraduate Certificate Mathematical Learning Difficulties (MLD)

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

## Mathematical Learning Difficulties (MLD)


$$\begin{array}{r} 2 \\ 582 - 248 = \\ 427 - 293 = \end{array}$$