Postgraduate Diploma

Mathematics and Econometrics

tech technological university

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Postgraduate Diploma
Mathematics and Econometrics

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**
- Target Group: **University Graduates who have previously completed any of the degrees in the fields of Mathematics and Macroeconomics.**

Website: **www.techtitute.com/us/school-of-business/postgraduate-diploma/postgraduate-diploma-mathematics-econometrics**

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01

Welcome

The increasing involvement of mathematics in crisis management and various economic frameworks has led to professionals in this field looking for higher level specialization. Its current contribution in informatics is one of the most powerful interests that have led to the demand for academic programs by mathematical experts who wish to broaden their knowledge in the field. For this reason, TECH offers a complete and rigorous program based on the professional experience of professionals versed in econometrics in the health and industrial fields, in macroeconomics and development, as well as marketing and finance. In addition, TECH offers its programs through a 100% online format that allows flexible and adaptable study to the needs of managers.

Postgraduate Diploma in Mathematics and Econometrics by TECH Technological University

Master the mathematical intervention in algorithms and their role in informatics thanks to a program that will give you the keys to be part of the forefront of this field"

02

Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class centre for intensive managerial skills training.

TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"

At TECH Technological University

Innovation

The university offers an online learning model that combines the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"Microsoft Europe Success Story", for integrating the innovative, interactive multi-video system.

The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

95% | **of TECH students successfully complete their studies**

Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

100,000+
executives trained each year

200+
different nationalities

Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

500+ | **collaborative agreements with leading companies**

Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.

Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.

Learn with the best

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.

At TECH you will have access to Harvard Business School case studies"

TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:

Analysis

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.

Academic Excellence

TECH offers students the best online learning methodology. The university combines the Relearning methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.

Economy of Scale

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.

03

Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.

We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you training of the highest academic level"

This program will provide students with a multitude of professional and personal advantages, particularly the following:

01

A significant career boost

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

70% of participants achieve positive career development in less than 2 years.

02

Develop a strategic and global vision of companies

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional areas.

Our global vision of companies will improve your strategic vision.

03

Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

You will work on more than 100 real senior management cases.

04

Take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

45% of graduates are promoted internally.

05

Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

You will find a network of contacts that will be instrumental for professional development.

06

Thoroughly develop business projects

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different areas in companies.

20% of our students develop their own business idea.

07

Improve *soft* skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

Improve your communication and leadership skills and enhance your career.

08

Be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified professors from the most prestigious universities in the world: the TECH Technological University community.

We give you the opportunity to train with a team of world renowned teachers.

04

Objectives

This Postgraduate Diploma aims to broaden and update the specific knowledge of mathematical experts to bring them closer to the new strategies in this field. Among other issues, the program addresses the basic variables of microeconomics, such as public intervention, externalities and public goods, as well as static and dynamic game theory. Having the skills to apply technical knowledge is essential in the daily development of practical economic exercises.

Integrate the effects of microeconomic variables within the business environment thanks to this Postgraduate Diploma"

TECH makes the goals of their students their own goals too. Working together to achieve them.

The **Postgraduate Diploma in Mathematics and Econometrics** enables the student to:

01 Know the basic elements that make up business mathematics: linear and matrix algebra, matrices, matrix transposition, calculus, matrix inversion, systems of equations, etc.

02 Understand the different techniques and mathematical methods used within the financial framework of a company

03 Apply mathematical techniques and methods to the financial framework of the company

04 Recognize economic realities in one or more differential equations from an economic perspective

05 Interpret the results of optimization problems

06 Evaluate the possible consequences of alternative actions

07 Analyze economic theories by means of estimation methods, calculations or by interval and hypothesis testing, both parametric and non-parametric

08 Conduct economic policy assessments of a country's government

09 Analyze the effect of a social policy

10 Generate predictions about a country's economy

05

Structure and Content

The Postgraduate Diploma in Mathematics and Econometrics has been developed by a teaching team versed in the area that endorses the contents of the syllabus and guarantees the correct instruction of the specialists. It is a program with great flexibility as it is taught through a 100% online modality. This, together with the audiovisual contents in different formats and the Relearning methodology make the program adaptable to the personal and professional needs of the students.

Master the basic concepts of accounting and its scope to apply them in the business and financial environment with all the guarantees"

Syllabus

TECH's Postgraduate Diploma in Mathematics and Econometrics is a comprehensive program designed to broaden the financial skills of graduates in Economics, Accounting and Finance, among other degrees. One of the objectives of the program is the mastery of the method of analysis and representation of operations in the accounting field, in addition to providing students with a critical view of national and international economic problems.

To achieve this, TECH teaches this subject through theoretical and practical exercises that are focused on current environments, so that students can apply them in the real financial scenario. With this in mind, the University has adopted the most innovative methodology to facilitate and guarantee the financial training of students in the shortest possible time and in the most accessible way.

In just six months, specialists will learn the keys to economic performance, applying real functions of several variables, the ordinary least squares (OLS) estimation method, residual analysis in linear prediction, as well as qualitative variables in MRLG II and Dummyvariables, among other issues. It is a program that will project the professional career of economists, supported by an expert teaching staff in the field.

In addition, TECH uses the Relearning methodology to bring all the knowledge and current economic tools to the specialists without the need to invest long hours of study in it. Likewise, its 100% online modality offers the possibility of adapting the study to the personal and professional needs of the students, regardless of their time availability.

This Postgraduate Diploma takes place over six months and is divided into three modules:

Module 1. Mathematics

Module 2. Mathematics for Economists

Module 3. Econometrics

Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Diploma in Mathematics and Econometrics completely online. Over the course of 6 months, you will be able to access all the contents of this program at any time, allowing you to self-manage your study time.

A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.

Module 1. Mathematics

1.1. Basic Elements of Linear and Matrix Algebra
1.1.1. The Vector Space of IRn, Functions and Variables
1.1.1.1. Graphical Representation of Sets in R
1.1.1.2. Basic Concepts of Functions of Several Real Variables. Operations with Functions
1.1.1.3. Function Types
1.1.1.4. Weierstrass' Theorem
1.1.2. Optimization with Inequality Constraints
1.1.2.1. Two-Variable Graphical Method
1.1.3. Function Types
1.1.3.1. Separate Variables
1.1.3.2. Polynomial Variables
1.1.3.3. Rational Variables
1.1.3.4. Quadratic Forms

1.2. Matrices: Types, Concepts and Operations
1.2.1. Basic Definitions
1.2.1.1. Matrix of Order mxn
1.2.1.2. Square Matrices
1.2.1.3. Identity Matrix
1.2.2. Matrix Operations
1.2.2.1. Matrix Addition
1.2.2.2. Scalar Multiplication
1.2.2.3. Matrix Multiplication

1.3. Transpose
1.3.1. Diagonalizable Matrix
1.3.2. Transpose Properties
1.3.2.1. Involution

1.4. Determinants: Calculation and Definition
1.4.1. The Concept of Determinants
1.4.1.1. Determinant Definition
1.4.1.2. Square Matrix of Order 2,3 and Greater Than 3
1.4.2. Triangular Matrices
1.4.2.1. Determinant of Triangular Matrices
1.4.2.2. Determinant of Non-Triangular Square Matrices
1.4.3. Properties of Determinants
1.4.3.1. Simplifying Calculations
1.4.3.2. Calculation in any Case

1.5. Invertible Matrices
1.5.1. Properties of Invertible Matrices
1.5.1.1. The Concept of Inversion
1.5.1.2. Definitions and Basic Concepts
1.5.2. Invertible Matrix Calculation
1.5.2.1. Methods and Calculation
1.5.2.2. Exceptions and Examples
1.5.3. Expression Matrices and Matrix Equations
1.5.3.1. Expression Matrices
1.5.3.2. Matrix Equations

1.6. Solving Systems of Equations
1.6.1. Linear Equations
1.6.1.1. Discussion of the System. Rouché–Capelli Theorem
1.6.1.2. Cramer's Rule: Solving the System
1.6.1.3. Homogeneous Systems
1.6.2. Vector Spaces
1.6.2.1. Properties of Vector Spaces
1.6.2.2. Linear Combination of Vectors
1.6.2.3. Linear Dependence and Independence
1.6.2.4. Coordinate Vectors
1.6.2.5. The Basis Theorem

1.7. Quadratic Forms
1.7.1. Concept and Definition of Quadratic Forms
1.7.2. Quadratic Matrices
1.7.2.1. Law of Inertia for Quadratic Forms
1.7.2.2. Study of the Sign by Eigenvalues
1.7.2.3. Study of the Sign by Minors

1.8. Functions of One Variable
1.8.1. Analysis of the Behavior of a Magnitude
1.8.1.1. Local Analysis
1.8.1.2. Continuity
1.8.1.3. Restricted Continuity

1.9. Limits of Functions, Domain and Image in Real Functions
1.9.1. Multi-variable Functions
1.9.1.1. Vector of Several Variables
1.9.2. The Domain of a Function
1.9.2.1. Concept and Applications
1.9.3. Function Limits
1.9.3.1. Limits of a Function at a Point
1.9.3.2. Lateral Limits of a Function
1.9.3.3. Limits of Rational Functions
1.9.4. Indeterminacy
1.9.4.1. Indeterminacy in Functions with Roots
1.9.4.2. Indetermination 0/0
1.9.5. The Domain and Image of a Function
1.9.5.1. Concept and Characteristics
1.9.5.2. Domain and Image Calculation

1.10. Derivatives: Behavior Analysis
1.10.1. Derivatives of a Function at a Point
1.10.1.1. Concept and Characteristics
1.10.1.2. Geometric Interpretation
1.10.2. Differentiation Rules
1.10.2.1. Derivative of a Constant
1.10.2.2. Derivative of a Sum or Differentiation
1.10.2.3. Derivative of a Product
1.10.2.4. Derivative of an Opposite Function
1.10.2.5. Derivative of a Compound's Function

1.11. Application of Derivatives to Study Functions
1.11.1. Properties of Differentiable Functions
1.11.1.1. Maximum Theorem
1.11.1.2. Minimum Theorem
1.11.1.3. Rolle's Theorem
1.11.1.4. Mean Value Theorem
1.11.1.5. L'Hôpital's Rule
1.11.2. Valuation of Economic Quantities
1.11.3. Differentiable Functions

1.12. Function Optimization for Several Variables
1.12.1. Function Optimization
1.12.1.1. Optimization with Equality Constraint
1.12.1.2. Critical Points
1.12.1.3. Relative Extremes
1.12.2. Convex and Concave Functions
1.12.2.1. Properties of Convex and Concave Functions
1.12.2.2. Inflection Points
1.12.2.3. Growth and Decay

1.13. Antiderivatives
1.13.1. Antiderivatives
1.13.1.1. Basic Concepts
1.13.1.2. Calculation Methods
1.13.2. Immediate Integrals
1.13.2.1. Properties of Immediate Integrals
1.13.3. Integration Methods
1.13.3.1. Rational Integrals

1.14. Definite Integrals
1.14.1. Barrow's Fundamental Theorem
1.14.1.1. Definition of the Theorem
1.14.1.2. Calculation Basis
1.14.1.3. Applications of the Theorem
1.14.2. Curve Cutoff in Definite Integrals
1.14.2.1. Concept of Curve Cutoff
1.14.2.2. Calculation Basis and Operations Study
1.14.2.3. Applications of Curve Cutoff Calculation
1.14.3. Mean Value Theorem
1.14.3.1. Concept of Theorem and Closed Interval
1.14.3.2. Calculation Basis and Operations Study
1.14.3.3. Applications of the Theorem

Module 2. Mathematics for Economists

2.1. Multi-variable Functions
2.1.1. Terminology and Basic Mathematical Concepts
2.1.2. Definition of IRn in IRm Functions
2.1.3. Graphic Representation
2.1.4. Types of Functions
  2.1.4.1. Scaled Functions
    2.1.4.1.1 Concave Function and Its Application to Economic Research
    2.1.4.1.2. Convex Function and Its Application to Economic Research
    2.1.4.1.3. Level Curves
  2.1.4.2. Vectorial Functions
  2.1.4.3. Operations with Functions

2.2. Multi-variable Real Functions
2.2.1. Function Limits
  2.2.1.1. Point Limit of an IRn in IRm Function
  2.2.1.2. Directional Limits
  2.2.1.3. Double Limits and Their Properties
  2.2.1.4. Limit of an IRn in IRm Function
2.2.2. Continuity Study of Multi-variable Functions
2.2.3. Function Derivatives: Successive and Partial Derivatives Concept of Differential of a Function
2.2.4. Differentiation of Compound Functions: Chain Rule
2.2.5. Homogeneous Functions
  2.2.5.1. Properties
  2.2.5.2. Euler's Theorem and Its Economic Interpretation

2.3. Optimization
2.3.1. Definition
2.3.2. Searching and Interpreting Optimum
2.3.3. Weierstrass' Theorem
2.3.4. Local-Global Theorem

2.4. Unconstrained and Constrained Equality Optimization
2.4.1. Taylor's Theorem Applied to Multi-variable Functions
2.4.2. Unconstrained Optimization
2.4.3. Constrained Optimization
  2.4.3.1. Direct Method
  2.4.3.2. Interpreting Lagrange Multipliers
    2.4.3.2.1. Hessian Matrix

2.5. Optimization with Inequality Constraints
2.5.1. Introduction
2.5.2. Necessary First-order Conditions for the Existence of Local Optima: Kuhn-Tucker's Theorem and Its Economic Interpretation
2.5.3. Globality Theorem: Convex Programming

2.6. Lineal Programming
2.6.1. Introduction
2.6.2. Properties
2.6.3. Graphic Resolution
2.6.4. Applying Kuhn-Tucker Conditions
2.6.5. Simplex Method
2.6.6. Economic Applications

2.7. Integral Calculus: Riemann's Integral
2.7.1. Definition and Application in Economics
2.7.2. Properties
2.7.3. Integrability Conditions
2.7.4. Relation between Integrals and Derivatives
2.7.5. Integration by Parts
2.7.6. Change of Variables Integration Method

2.8. Applications of Rienmann's Integral in Business and Economics
2.8.1. Distribution Function
2.8.2. Present Value of a Cash Flow
2.8.3. Mean Value of a Function in an Enclosure
2.8.4. Pierre-Simon Laplace and His Contribution

2.9. Ordinary Differential Equations
2.9.1. Introduction
2.9.2. Definition
2.9.3. Classification
2.9.4. First Order Differential Equations
  2.9.4.1. Resolution
  2.9.4.2 Bernoulli's Differential Equations
2.9.5. Exact Differential Equations
  2.9.5.1. Resolution
2.9.6. Greater Than One Ordinary Differential Equations (with Constant Coefficients)

2.10. Finite Difference Equations
2.10.1. Introduction
2.10.2. Discrete Variable Functions or Discrete Functions
2.10.3. First-order Linear Finite Difference Equations with Constant Coefficients
2.10.4. Order Linear Finite Difference Equations with Constant Coefficients
2.10.5. Economic Applications

Module 3. Econometrics

3.1. The Ordinary Least Squares (OLS) Method
3.1.1. Linear Regression Models
3.1.2. Types of Content
3.1.3. General Line and OLS Estimation

3.2. OLS Method in Other Scenarios
3.2.1. Abandoning Basic Assumptions
3.2.2. Method Behavior
3.2.3. Effect of Measurement Changes

3.3. Properties of OLS Estimators
3.3.1. Moments and Properties
3.3.2. Variance Estimation
3.3.3. Matrix Forms

3.4. OLS Variance Calculation
3.4.1. Basic Concepts
3.4.2. Hypothesis Testing
3.4.3. Model Coefficients

3.5. Hypothesis Testing in Linear Regression Models
3.5.1. T-Contrast
3.5.2. F-Contrast
3.5.3. Global Contrasts

3.6. Confidence Intervals
3.6.1. Objectives
3.6.2. In a Coefficient
3.6.3. In a Combination of Coefficients

3.7. Specification Problems
3.7.1. Use and Concept
3.7.2. Types of Problems
3.7.3. Unobservable Explanatory Variables

3.8. Prediction in Linear Regression Models
3.8.1. Prediction
3.8.2. Average Value Intervals
3.8.3. Applications

3.9. Residual Analysis in Linear Prediction
3.9.1. Objectives and General Concepts
3.9.2. Analysis Tools
3.9.3. Waste Analysis

3.10. Qualitative Variables in GLRM I
3.10.1. Fundamentals
3.10.2. Models with Various Types of Information
3.10.3. Linear Metrics

3.11. Qualitative Variables in GLRM II
3.11.1. Binary Variables
3.11.2. Use of DummyVariables
3.11.3. Time Series

3.12. Autocorrelation
3.12.1. Basic Concepts
3.12.2. Consequences
3.12.3. Contrast

3.13. Heteroscedasticity
3.13.1. Concept and Contrasts
3.13.2. Consequences
3.13.3. Time Series

06

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.

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"

TECH Business School uses the Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

This program prepares you to face business challenges in uncertain environments and achieve business success.

Our program prepares you to face new challenges in uncertain environments and achieve success in your career.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and business reality is taken into account.

> *You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments"*

The case method has been the most widely used learning system among the world's leading business schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

Relearning Methodology

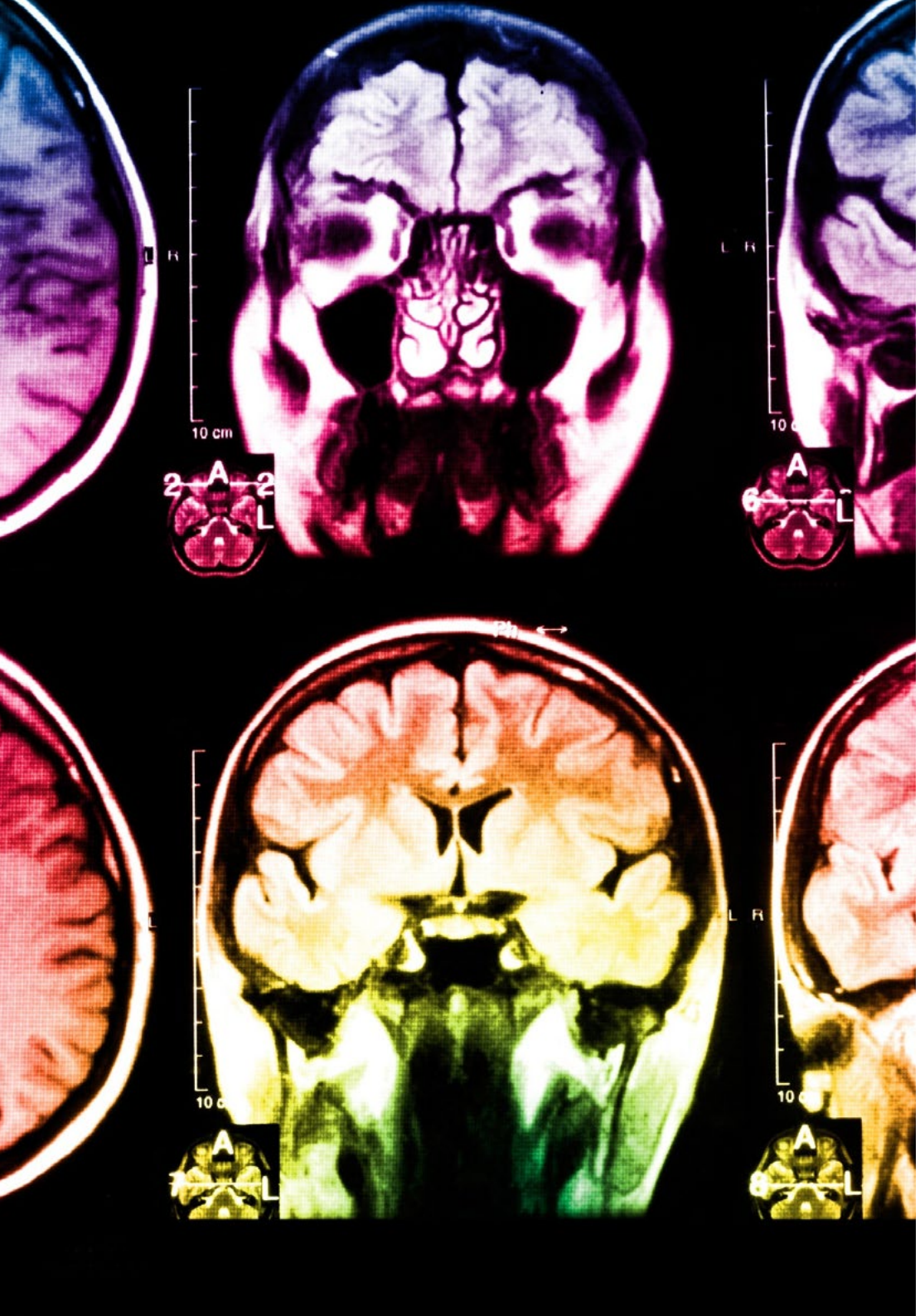
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our online business school is the only one in the world licensed to incorporate this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



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. With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. 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.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

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.

Classes

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

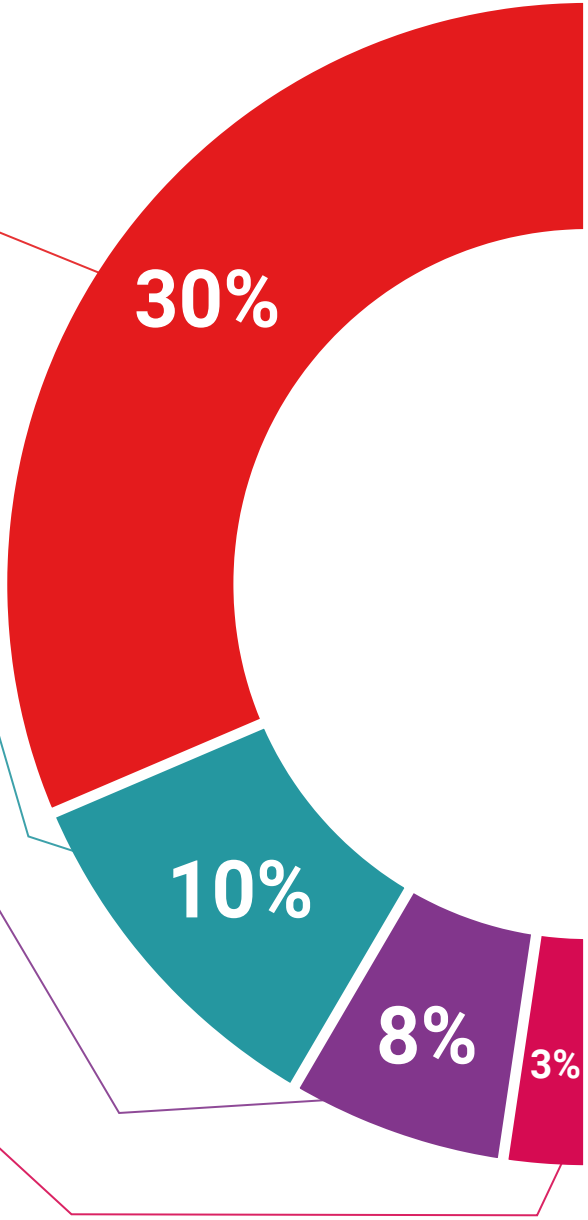
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

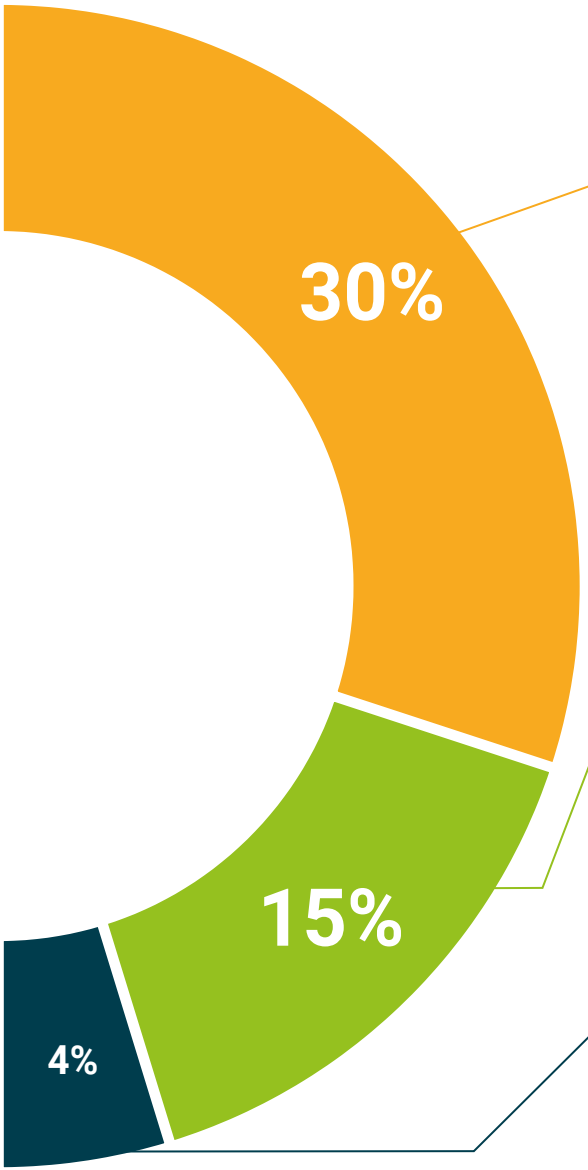
Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.

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.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best senior management specialists in the world.

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".

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.

07

Our Students' Profiles

The Postgraduate Diploma is aimed at university graduates who have previously completed any of the following degrees in the field of Finance, Accounting, Economic Policy and Economic Sciences.

This program uses a multidisciplinary approach as the students have a diverse set of academic profiles and represent multiple nationalities.

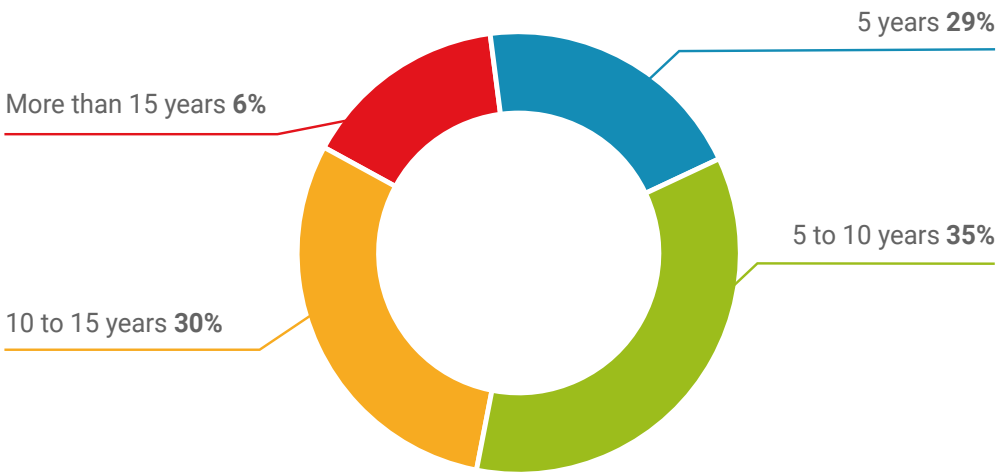
The Postgraduate Diploma can also be taken by professionals who, being university graduates in any field, have several years of work experience in the field of Mathematics and Econometrics.

Delve into Riemann's integral calculus and its applications in economics and business to become an up-to-date specialist"

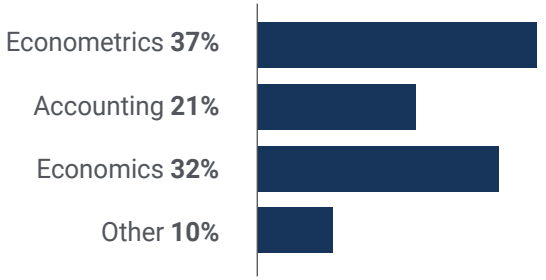
Average Age

Between **35** and **45** years old

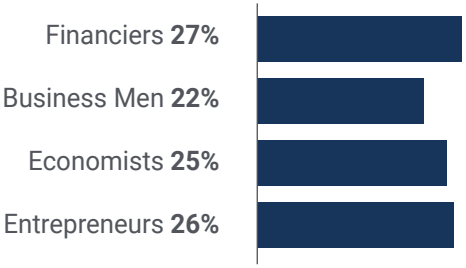
Years of Experience



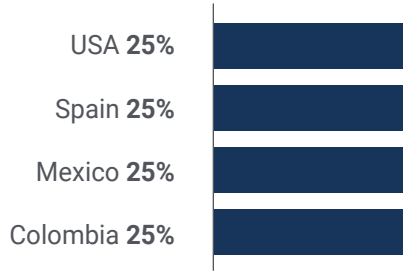
Training



Educational Profile



Geographical Distribution



Ana Martinez

Economist and Financial

"Thanks to this program, I have managed to advance in the branches of accounting, towards the analysis of financial statements. Not only has it been a very complete and rigorous program, due to the collaboration of its teachers, but they have provided me with all the facilities to combine work and study at the same time, in addition to the family"

08

Impact on Your Career

TECH is aware of the need for the mastery of mathematics for the global development of the current paradigm. Informatics is one of the sciences that depend directly on them and that are booming right now. For this reason, TECH has called upon the experts versed in the field to support and guide the students in their academic path, ensuring optimal instruction in their business praxis.

Delves into globalization through the Kuhn-Tucker theorem and its economic interpretation in the real scenario"

Master the uses, techniques and methods of unconstrained and constrained equality optimization methods of the international economic framework, thanks to TECH.

Are you ready to take the leap?
Excellent professional development awaits you.

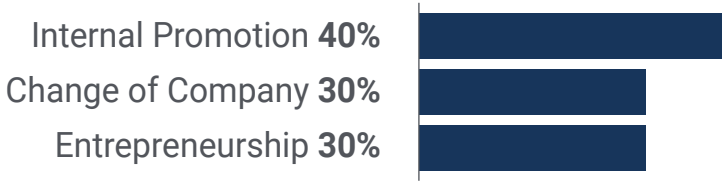
The TECH Postgraduate Diploma in Mathematics and Econometrics is an intensive program that prepares the professional to face challenges and business decisions in the field of Accounting. The main objective is to promote personal and professional growth. Helping students achieve success.

If the goal is to better yourself, make a positive change professionally and network with the best, this is the place.

If you want to make a positive change in your profession, the Postgraduate Diploma in Mathematics and Econometrics will help you achieve it.

Time of change

Type of change



Salary increase

The completion of this program represents a salary increase of more than **25.3%** for our students.

09

Benefits for Your Company

The Postgraduate Diploma in Mathematics and Econometrics contributes to elevating the talents of economic specialists to their full potential through instruction focused on micro and macroeconomics. By studying in this program, students will find a unique opportunity to develop their knowledge through a teaching that adapts to them and their needs in an online format, escaping from orthodox programs that do not focus on daily work practice.

The up-to-date entrepreneur will contribute new concepts, strategies and perspectives that can bring about essential changes in the economic paradigm"

Developing and retaining talent in companies is the best long-term investment.

01

Intellectual Capital and Talent Growth

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

02

Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.

03

Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.

04

Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.

05

Project Development

The professional can work on a real project or develop new projects in the field of R&D or Business Development of your company.

06

Increased competitiveness

This Postgraduate Diploma will equip your professionals with the skills to take on new challenges and therefore drive the organization forward.

10

Certificate

The Postgraduate Diploma in Mathematics and Econometrics guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.

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

This **Postgraduate Diploma in Mathematics and Econometrics** 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 Diploma**, issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Diploma in Mathematics and Econometrics**

Official Nº of Hours: **450 h.**


tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Mathematics and Econometrics

This is a qualification awarded by this University, equivalent to 450 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

*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.

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Postgraduate Diploma
Mathematics and Econometrics

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

Postgraduate Diploma

Mathematics and Econometrics

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