

Postgraduate Certificate Basic Economics



Postgraduate Certificate Basic Economics

- » Modality: Online
- » Duration: 12 weeks
- » 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 field of Business and Economic Sciences

Website: www.techtitute.com/us/school-of-business/postgraduate-certificate/basic-economics

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01 Welcome

Knowing in detail the ins and outs of Basic Economics is essential for any professional who wants to stand out in the financial sector. It is about mastering the basics of this social science through an exhaustive knowledge of its most effective, optimal and profitable strategies, something that will serve to plan complex techniques that will allow entities to achieve even the most ambitious objectives. Based on this, TECH has developed a complete, dynamic and intensive program that delves precisely into its two pillars: corporate finance and economic mathematics. Through the mastery of these two areas, the graduate will be able to assume the leadership of any investment project based on a solid and up-to-date knowledge of the guidelines to achieve maximum profit. In addition, its convenient 100% online format will allow you to complete your professional profile in a way that can be combined with any other academic or work activity.



Postgraduate Certificate in Basic Economics
TECH Technological University



“

Would you like to distinguish yourself in your work environment for your mastery of linear programming and investment evaluation? With this Postgraduate Certificate you will achieve it in just 12 weeks”

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 center for intensive managerial skills education.



“

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 balances 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.

+100000

executives prepared 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.



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



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 the most rigorous and up-to-date case analyses in academia"



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 method (postgraduate learning methodology with the best international valuation) with the Case Study. Tradition and vanguard in a difficult balance, and in the context of the most demanding educational itinerary.



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 education of the highest academic level”

This program will provide you with a multitude of professional and personal advantages, among which we highlight the following:

01

A Strong Boost to Your Career

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 students achieve positive career development in less than 2 years.

02

Develop a strategic and global vision of the company

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

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

You will 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 fields 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

You will be part of an exclusive community

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

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

04 Objectives

Mastering the keys to Basic Economics will allow graduates interested in this area to establish alternative (and more effective) uses of those available to the entity of which they are a part, which will help them to achieve higher professional success. For this reason, the objective of this Postgraduate Certificate is to provide students with the academic tools that will allow them to develop an exhaustive knowledge of the keys to corporate finance and mathematics for economics, while adapting their profile to the labor demand of today's market.



“

The more ambitious your academic goals are, the more you will be able to get the most out of this Postgraduate Certificate”

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

The **Postgraduate Certificate in Basic Economics** qualifies student to:

01

Define the fundamental elements that make up
Corporate Finance

02

Analyze the variables involved in investment decision
making in order to maximize the economic value of
the organization

03

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





04

Interpret the results of optimization problems

05

Assess the possible consequences of alternative actions

05

Structure and Content

This Postgraduate Certificate in Basic Economics includes 300 hours of the best theoretical, practical and additional content. The latter is composed of material presented in different formats: detailed videos, research articles, complementary readings, self-knowledge exercises and much more! In addition, everything can be downloaded to any device with an Internet connection, so that the graduate can access it whenever they want and need it, even after completing this academic experience.



“

Have you ever taken a program based on the Relearning methodology? After passing this Postgraduate Certificate you won't want anything else"

Syllabus

This Postgraduate Certificate has been developed so that the graduate can learn in detail the intricacies of Basic Economics applied to the financial sector. For this reason, its syllabus has been developed by experts in the area with a broad and extensive professional experience in the management of projects related to corporate finance and mathematics specialized in this field.

Only this way has it been possible to shape a 12-week academic experience, with which the graduate will be able to acquire the most comprehensive knowledge based on the latest developments related to investment in the company, the tools of evaluation and structuring of capital and the planning of investments with risk. In addition, the syllabus also delves into different aspects of mathematics, such as the execution of different types of functions and optimization actions, as well as linear programming and integral calculus.

Thanks to this, students will be able to perfect their skills, implementing the most effective management and leadership techniques to their professional competencies. This will enable them to become a true expert in the sector, opening the doors to a successful job market.

Module 1

Financial Operations

Module 2

Mathematics for Economists



Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in Basic Economics completely online. Over the course of 12 weeks, 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. Introduction to Corporate Finance

1.1. Introduction to Corporate Finance

- 1.1.1. The Financial Environment of the Company
 - 1.1.1.1. The Company's Financial Objective
 - 1.1.1.2. The Financial Needs of the Company
- 1.1.2. The Role of Financial Management

1.2. Investment in the Company

- 1.2.1. Classification of Investments in the Company
- 1.2.2. Phases for Analyzing Investments

1.3. Evaluation of Investments

- 1.3.1. Evaluation of Investments: NPV, IRR and Payback
 - 1.3.1.1. The Annual Net Present Value (NPV) Criteria
 - 1.3.1.2. The Internal Rate of Return (IRR) Criteria
 - 1.3.1.3. Acceptance and Management of Investment Projects According to the NPV and IRR Criteria
- 1.3.2. The Payback Period Criteria

1.4. Analysis of the Variables Involved in Investment Decision-Making

- 1.4.1. Criteria for the Determination of Cash Flows
 - 1.4.1.1. Criteria for the Cash Flow Design
 - 1.4.1.2. General Structure for the Cash Flows Design
 - 1.4.1.3. Classification of Cash Flows
 - 1.4.1.4. Residual or Scrap Value

1.5. The Company's Financing

- 1.5.1. Sources of Financing
- 1.5.2. Types of Financing Costs
 - 1.5.2.1. Cost of Equity Capital
 - 1.5.2.2. The Cost of Debt
 - 1.5.2.3. The Weighted Average Cost of Capital (WACC) in the Valuation of Investment Projects

1.6. The Capital Structure

- 1.6.1. Optimal Capital, Shareholders and Taxes
 - 1.6.1.1. Capital Structure: Theories and Concepts
 - 1.6.1.2. Maximization of Company Value versus Maximization of Shareholders' Interests
 - 1.6.1.3. The Influence of Taxes on the Capital Structure Decision
 - 1.6.1.4. Limits on the Use of Debt

1.7. Bond Valuation

- 1.7.1. Bond Investment Strategies
 - 1.7.1.1. Bond Investment Concepts, Classification and Strategies
 - 1.7.1.2. Behavior of Market Interest Rates
 - 1.7.1.3. Basic Bond Valuation Model
 - 1.7.1.4. Yield and Return Measures

1.8. Valuation of Shares

- 1.8.1. Stock Market
- 1.8.2. Valuation of Shares

1.9. Investments with Risk

- 1.9.1. Risk Classification
- 1.9.2. Markowitz's Optimal Investment Portfolio
- 1.9.3. Risk and Return. The CAPM model

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. Weirstrass' 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 Riemann'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
 - 2.9.4.1. Bernoulli's Differential Equation
- 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

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.



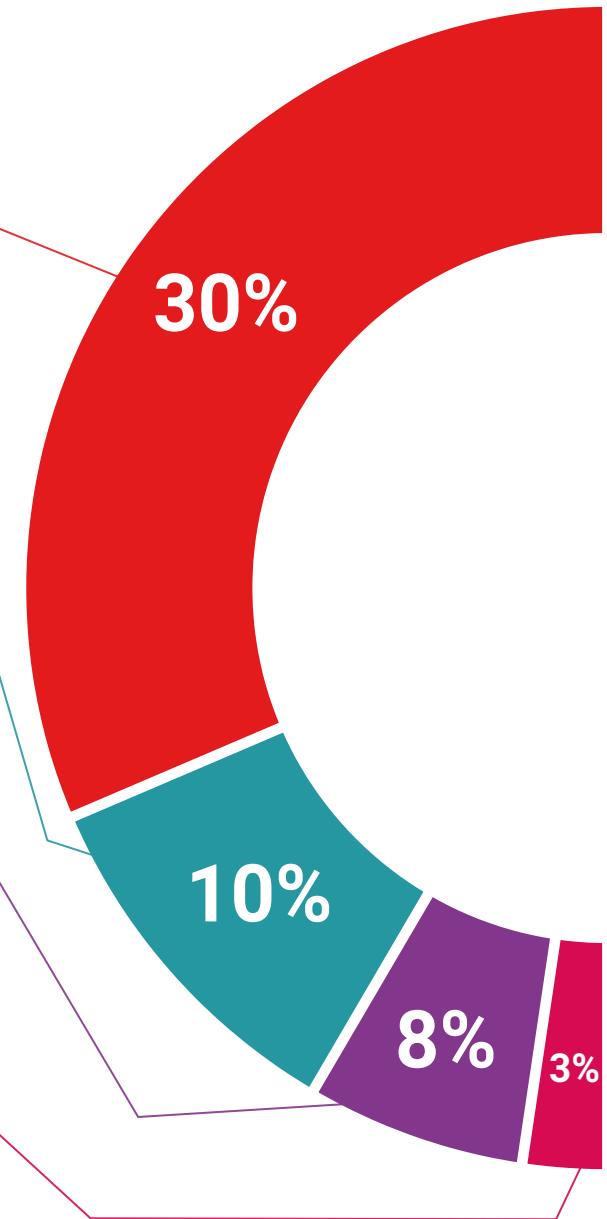
Management Skills Exercises

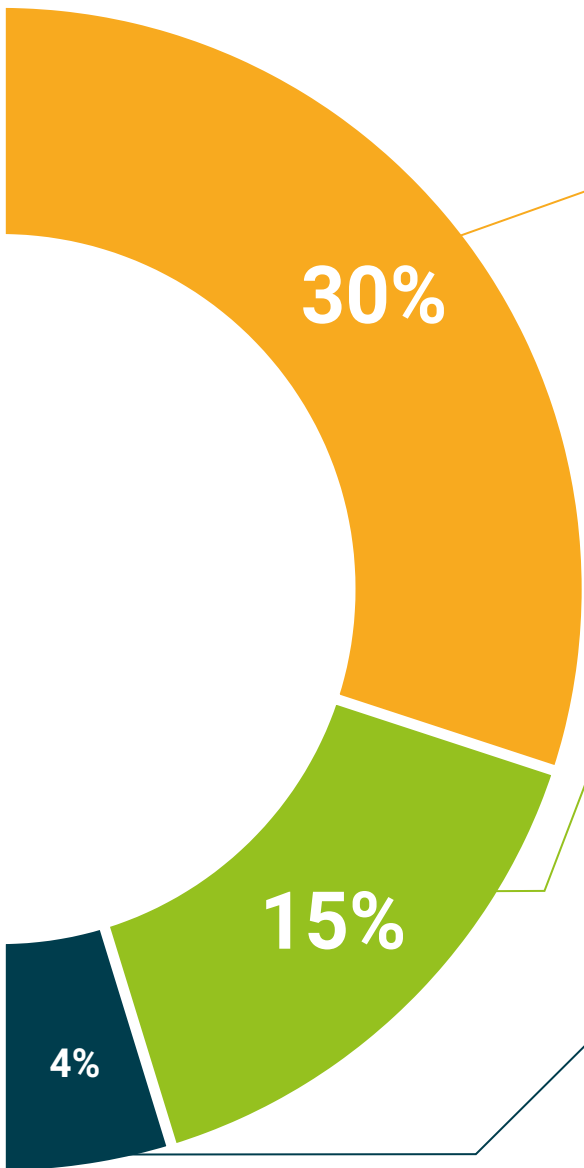
They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



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

This Postgraduate Certificate is aimed at university graduates and graduates who have previously completed any of the following degrees in the field of economics, business and finance. It also offers tools to understand and be able to handle with ease the management and administration of basic economics.

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

Professionals who, being university graduates in any other area, have two years of work experience in Economic and Financial Mathematics, may also take the Postgraduate Certificate.





“

Reach your professional peak through an education that will elevate your financial and mathematical talents to the very top of the industry”

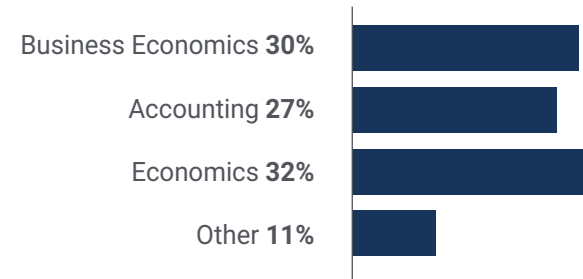
Average Age

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

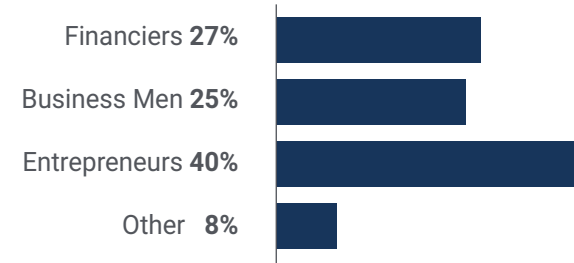
Years of Experience



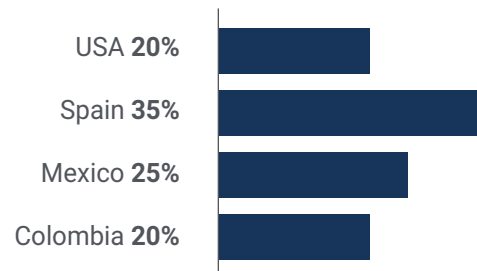
Training



Educational Profile



Geographical Distribution



Yohanna Pereira

Sustainable economic development expert and officer

"The Postgraduate Certificate of this program served as a guide for me to expand my knowledge in the area of economics in preparation for the state competitive examinations. Thanks to it, I was able to learn the ins and outs of mathematics for economists in detail and make a difference in my exam. Without a doubt, this is an academic experience that I highly recommend"

08

Impact on Your Career

Including this program in the graduate's academic curriculum will allow them to make a qualitative leap in their professional career. With TECH's endorsement, students will be able to demonstrate that they have the most comprehensive and specialized knowledge of basic economics, corporate finance and mathematics for those versed in this area. In addition, the course of this program guarantees the achievement of a series of merits that will distinguish you as a highly qualified manager to take on the leadership of any project related to high-risk investments.





“

A Postgraduate Certificate that will open the doors to a successful working future full of excellent opportunities"

Have you been looking for a salary increase for a long time? Enhancing your professional skills through this Postgraduate Certificate will allow you to get a guaranteed improvement.

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

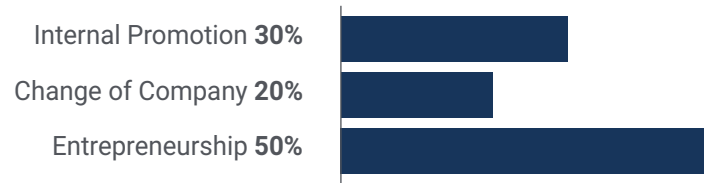
The Postgraduate Certificate in Basic Economics at TECH is an intensive program that prepares you to face challenges and corporate decisions, both on a national and international level. The main objective is to promote your personal and professional growth. Helping you achieve success.

Your thorough handling of corporate finance will help you distinguish yourself and stand out, increasing your chances of getting promoted to the position you've always dreamed of.

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

For any organization, having a professional qualified through any program designed by TECH is a guarantee to ensure a successful working future. Graduates of programs such as this Postgraduate Certificate will know in detail the intricacies of Basic Economics, as well as the keys to establish business strategies based on the most effective and efficient variables within the current financial sector.





“

Through the resolution of simulations of real cases, you will be able to establish guidelines for action in complex situations, always thinking of the benefit of your company”

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

01

Growth of talent and intellectual capital

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 program will equip students with the skills to take on new challenges and drive the organization forward.

10 Certificate

The Postgraduate Certificate in Basic Economics guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Basic Economics** 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 Basic Economics**

Official N° of Hours: **300 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.



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- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **Online**

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