

Executive Master's Degree

MBA in IT Management (CTO, Chief Technical Officer)

M B A I T M



Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer)

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online
- » Target Group: Graduates and professionals with experience in technological areas

Website: www.techtitute.com/us/school-of-business/professional-master-degree/master-mba-it-management-cto-chief-technical-officer

Index

01

Welcome

p. 4

02

Why Study at TECH?

p. 6

03

Why Our Program?

p. 10

04

Objectives

p. 14

05

Skills

p. 20

06

Structure and Content

p. 24

07

Methodology

p. 34

08

Our Students' Profiles

p. 42

09

Course Management

p. 46

10

Impact on Your Career

p. 52

11

Benefits for Your Company

p. 56

12

Certificate

p. 60

01

Welcome

It is impossible to understand today's business world without what is already considered the Fourth Industrial Revolution or "Industry 4.0". The high complexity of processes such as machine learning or the growing concern about cybersecurity vulnerabilities make the figure of the CTO, Chief Technical Officer, essential in the most important organizations. This top-level manager must be proficient in both technology management and IT project management at all levels. For this reason, this program combines the most effective team and talent management with the most ambitious and current digital governance. The manager will have access to specific materials on Data Hacking, Community Management, Business Process Management and other essential elements in the leadership of the 21st century. All of this with the advantage of a 100% online methodology that does not require any personal or professional sacrifice, since on-site classes and fixed schedules have been eliminated in search of the flexibility needed by managers with greater responsibilities.



MBA in IT Management (CTO, Chief Technical Officer).
TECH Technological University



“

The CTO or Chief Technical Officer is an essential figure at the forefront of business. This program will give you the knowledge to become a key figure within your company”

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 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, studying 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's 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 studies in the academic community"



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 (a postgraduate learning methodology with the highest international rating) with the Case Study. A complex balance between tradition and state-of-the-art, within the context of the most demanding academic 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 groundbreaking 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 students with a multitude of professional and personal benefits, 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 learn with a team of world renowned teachers

04 Objectives

The main objective of this program is to provide managers with the tools, knowledge and strategies necessary to lead successful technology projects. Therefore, thanks to the extensive and detailed technical material, you will be able to graduate from this degree with the ability to assume the position of CTO, Chief Technical Officer, in institutions of greater prestige and economic power.



“

The student will be positioned as a cutting-edge manager, studying the most modern data, technology and people management models in depth"

Your goals are our goals.

We work together to help you achieve them.

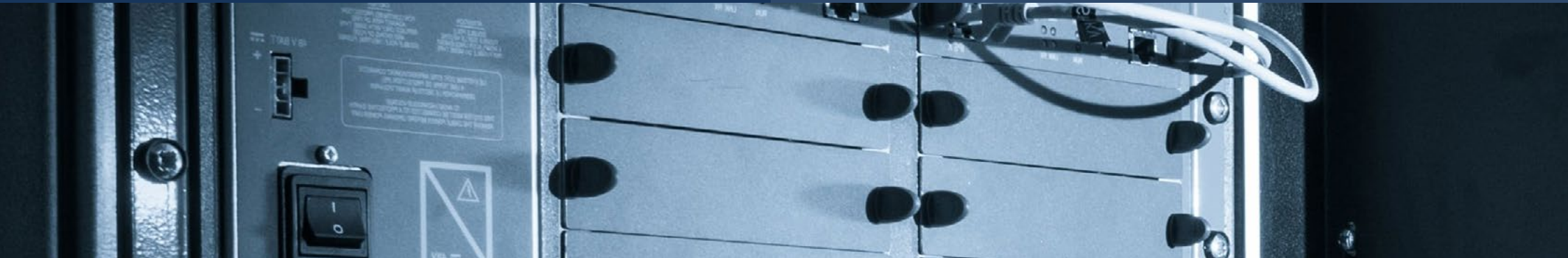
The MBA in IT Management (CTO, Chief Technical Officer) will qualify you to:

01

Assess the status, positioning and maturity of information technologies in business environments

03

Adopt strategic governance models for information technologies, which are integrated and harmonized with corporate strategy and management



02

Develop management skills and knowledge necessary for technological leadership in the organization

04

Implement methods to systematize technological innovation processes, linked to the needs of the company

05

Develop management activities related to information and communication technologies (ICT) and R&D&I environments

07

Analyze the social and economic environment surrounding ICT management and innovation

06

Participate in projects related to ICT management, innovation and research development

08

Apply the ethical, legislative and deontological framework for ICT professionals and ICT management



09

Develop IT project management methodologies, controlling process and product quality

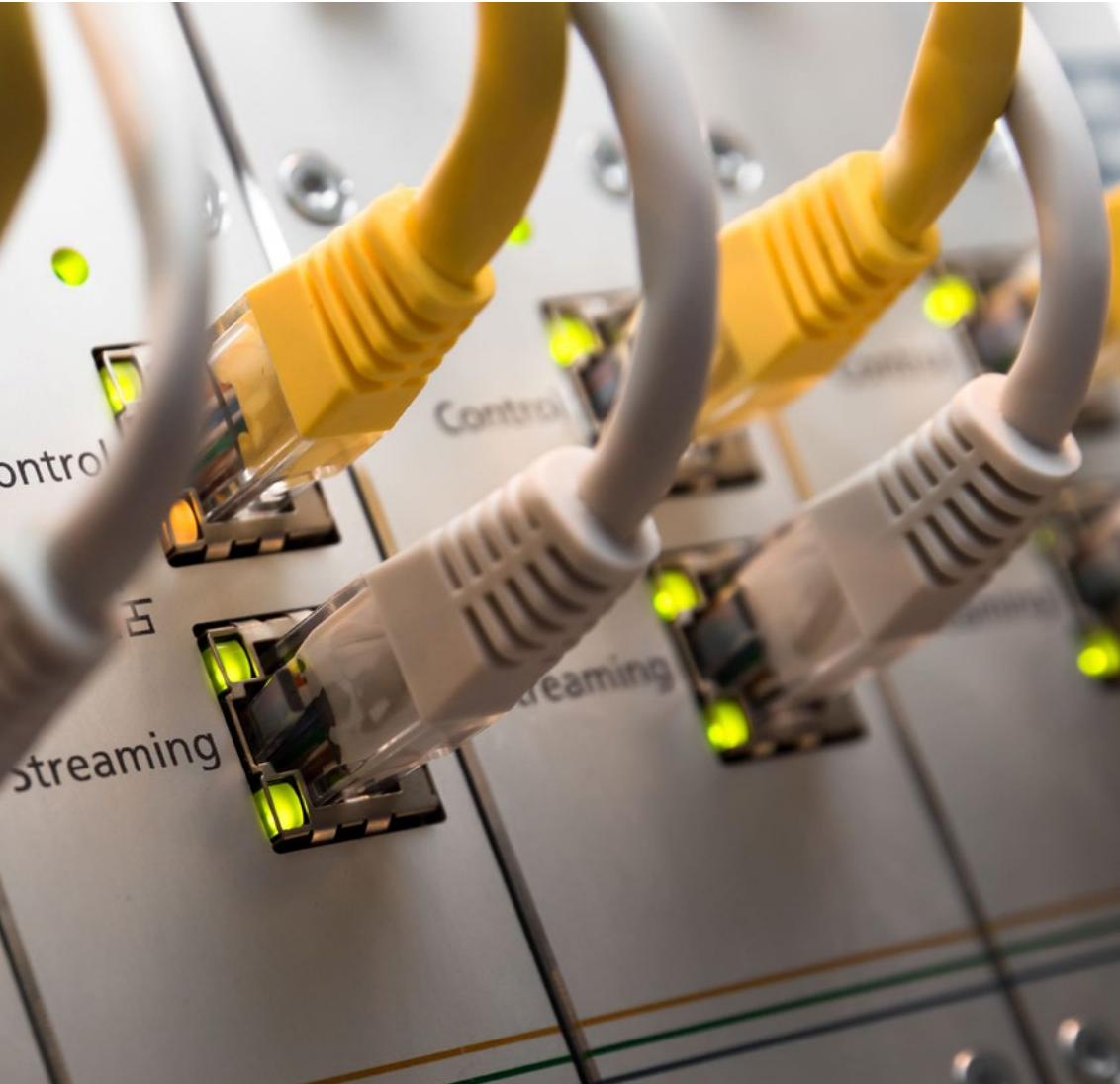
10

Proper team management that enables greater performance by the personnel and, therefore, greater benefits for the company

11

Recognize talent in the organization





12

Know, develop and evaluate all the planning processes of an IT project

13

Carry out R&D&I as an essential element for the development of new projects

14

Understand the importance of social media as an essential tool for marketing and advertising campaigns for companies

05 Skills

In order to develop the competencies required of the modern CTO, this qualification will provide an in-depth study of all the qualities that this high-level managerial figure must possess. Therefore, the entire syllabus covers not only the fundamental strategic and technological theory, but also practical cases and examples with which to develop and contextualize it in real situations. The manager will graduate with a complete mastery of the skills required to develop their professional career in the most ambitious technological spheres.





“

Acquire the necessary and complementary skills to be an exemplary leadership figure in the technological field"

01

Use new digital trends in the development of new products

02

Lead a company specialized in IT projects, focusing on team and project management

03

Apply the most appropriate information systems and technologies in the company

04

Carry out correct strategic planning to achieve the company's objectives

05

Apply the basic principles of Lean Management



06

Understand the importance of audits and certifications in R&D&I

08

Apply social media in the development of the company



09

Have extensive knowledge of Big Data

07

Search for and develop an optimal user experience, through information technology

10

Implement an appropriate strategy for the proper development of a digital business

06

Structure and Content

To ensure the highest quality of content, TECH has assembled a teaching team specialized in the subject, with special emphasis on those areas that the CTO, Chief Technical Officer, must develop in order to succeed in their field of work. For this reason, the 10 modules that make up this program are enriched with high quality multimedia material, including video summaries, detailed analysis and complementary readings to expand on each subject.



“

The entire syllabus is tailored to the most demanding business scenarios, giving you the assurance that you are acquiring the skills of the highest level Chief Technical Officer"

Syllabus

The MBA in IT Management (CTO, Chief Technical Officer), from TECH Technological University, is an intensive program that prepares managers to face challenges and business decisions at the technological level, both nationally and internationally. Its content is designed to promote the development of managerial skills, allowing for more rigorous decision making in uncertain environments.

Throughout 1,500 hours of study, a multitude of practical cases will be analyzed through individual work, in such a way that a comprehensive and useful learning process is achieved, allowing for professional development. It is, therefore, an authentic immersion in real business situations.

This program deals with different areas of the company in depth and is designed to specialize managers who understand technological development in the organization from a strategic, international and innovative perspective.

A plan designed for students, focused on their professional improvement and one that prepares them to achieve excellence in the field of business management and administration. A program that understands your needs and those of your company, through innovative content based on the latest trends, and supported by the best educational methodology and an exceptional faculty, which will provide you with the competencies to solve critical situations in a creative and efficient way.

This program is carried out over 12 months and is divided into two main blocks:

Block 1	Management Core
Module 1	Talent Management and Management Skills
Module 2	Technological Management
Module 3	Strategic Planning and IT Project Management
Module 4	Innovation Management
Module 5	Information Security Systems
Block 2	Strategy and Digital Business
Module 6	New Digital Trends
Module 7	Strategy and Digital Business
Module 8	Social Media and Community Management
Module 9	Data Science and Big Data
Module 10	Web Design, Usability and User Experience



Where, When and How is it Taught?

TECH offers the possibility of developing this Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer) completely online. Throughout the 12 months of training, 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.

Block 1: Management Core

Module 1. Talent Management and Management Skills

1.1. Management Skills Development

- 1.1.1. Leadership
- 1.1.2. Emotional Intelligence
- 1.1.3. Organization: Areas, Processes and Projects

1.2. Managing Talent as a Competitive Advantage

- 1.2.1. Keys for Positive Management
- 1.2.2. Talent Map of the Organization
- 1.2.3. Cost and Added Value

1.3. Team Management

- 1.3.1. Developing High-Performance Teams
- 1.3.2. The Roles of People in Groups
- 1.3.3. Personal Factors and Motivation for Successful Work
- 1.3.4. Integrating a High-Performance Team

1.4. Systems and Organizational Changes

- 1.4.1. The Transformation Process
- 1.4.2. Anticipation and Action
- 1.4.3. Organizational Learning
- 1.4.4. Resistance to Change

1.5. Management and Motivation

- 1.5.1. The Nature of Motivation
- 1.5.2. Expectations Theory
- 1.5.3. Needs Theory
- 1.5.4. Motivation and Financial Compensation

1.6. Innovation in Talent and People Management

- 1.6.1. Strategic Talent Management Models
- 1.6.2. Identification, Training and Development of Talent
- 1.6.3. Loyalty and Retention
- 1.6.4. Proactivity and Innovation

Module 2. Technological Management

2.1. Information Systems in Companies

- 2.1.1. The Evolution of the IT Model
- 2.1.2. Organization and the IT Department
- 2.1.3. Information Technology and Economic Environment

2.2. IT Position of the Business

- 2.2.1. Perception of Value Added to the Business
- 2.2.2. Strategy Maturity Level
- 2.2.3. IT Governance and Corporate Governance

2.3. Development of Management Skills

- 2.3.1. Management Function and Management Roles
- 2.3.2. The Role of the CIO in the Company
- 2.3.3. Vision and Mission of the IT Director
- 2.3.4. e-leadership and Holistic Innovation Management

2.4. Relational and Political Capabilities

- 2.4.1. Steering Committees
- 2.4.2. Influence
- 2.4.3. Stakeholders
- 2.4.4. Conflict Management

2.5. Corporate Strategy and Technology Strategy

- 2.5.1. Creating Value for Customers and Shareholders
- 2.5.2. Strategic IS/IT Decisions
- 2.5.3. Corporate Strategy vs. Technology and Digital Strategy

2.6. Information Systems for Decision-Making

- 2.6.1. Business Intelligence
- 2.6.2. Data Warehouse
- 2.6.3. Balanced Scorecard (BSC)

Module 3. Strategic Planning and IT Project Management
3.1. Process of Strategic Planning

- 3.1.1. Phases of the Plan
- 3.1.2. Conceptual Vision
- 3.1.3. Organization of Work

3.2. Understanding the Business Strategy

- 3.2.1. Information Needs
- 3.2.2. Business Process Mapping
- 3.2.3. Business Aspirations or Priorities

3.3. Analysis of Current IS/IT

- 3.3.1. Resource Level and Expenditure/Investment Level Analysis
- 3.3.2. Analysis of Perceived Quality
- 3.3.3. Application and Infrastructure Analysis
- 3.3.4. Analysis of the Environment and Competitors

3.4. Strategy Formulation

- 3.4.1. Aspirations and Strategic Directions of the Plan
- 3.4.2. The Target IS/IT Model
- 3.4.3. Strategic Initiatives
- 3.4.4. Implications of the Plan

3.5. Implementation Plan

- 3.5.1. Implementation Approach
- 3.5.2. Project Plan

3.6. Information Systems Projects

- 3.6.1. IT Project Planning
- 3.6.2. Project Follow-up and Closure
- 3.6.3. Project Management Strategies

3.7. Management of Technological Resources

- 3.7.1. Technological Offer
- 3.7.2. Time and Cost Management
- 3.7.3. Agile Project Management and Productivity

3.8. Lean IT

- 3.8.1. Lean IT and Lean Thinking
- 3.8.2. The Basic Principles of Lean Management
- 3.8.3. Improvement and Problem-Solving Groups
- 3.8.4. Maintenance and Quality Management Forms

Module 4. Innovation Management
4.1. Creative Thinking: Innovation

- 4.1.1. Innovation in the Technology Business
- 4.1.2. Techniques to Promote Creativity
- 4.1.3. Process of Conception of Innovative Ideas

4.2. Process Engineering and Product Engineering

- 4.2.1. Innovation Strategies
- 4.2.2. Open innovation
- 4.2.3. Innovative Organization and Culture
- 4.2.4. Multifunctional Teams

4.3. Launch and Industrialization of New Products

- 4.3.1. Design of New Products
- 4.3.2. Lean Design
- 4.3.3. Industrialisation of New Products
- 4.3.4. Manufacture and Assembly

4.4. R&D&I Management Systems

- 4.4.1. Requirements of a R&D&I Management Systems
- 4.4.2. Line of Action, Activity, Process and Procedure
- 4.4.3. Recommended Framework for R&D&I Management

4.5. R&D&I Auditing and Certification

- 4.5.1. Basic Principles of (R&D&I) Audits
- 4.5.2. Phases of a (R&D&I) Audit
- 4.5.3. Certifications in the Field of Research, Development and Innovation R&D&I
- 4.5.4. Certification of R&D&I Management Systems

4.6. Tools for R&D&I Management

- 4.6.1. Cause-Effect Diagram for R&D&I
- 4.6.2. Weighted Selection for R&D&I
- 4.6.3. Pareto Diagram for R&D&I
- 4.6.4. Matrix of Priorities for R&D&I

4.7. Benchmarking Applied to R&D&I

- 4.7.1. Types of Benchmarking
- 4.7.2. The Benchmarking Process in R&D&I
- 4.7.3. Methodology of the Benchmarking Process applied to R&D&I
- 4.7.4. Advantages of Benchmarking

4.8. Re-Engineering for the Radical Innovation of the Business Processes in the Company

- 4.8.1. Origins and Evolution of Process Re-Engineering
- 4.8.2. Objectives of Re-Engineering
- 4.8.3. Correct Approach to Re-Engineering

4.9. Direction and Management of R&D&I Projects

- 4.9.1. Elements that make up an R&D&I Project
- 4.9.2. Most Significant Stages of an R&D&I Project
- 4.9.3. Processes for the Management of R&D&I Projects

4.10. Quality Management in R&D&I Projects

- 4.10.1. The Quality Management System in R&D&I Projects
- 4.10.2. Quality Plans for R&D&I Projects
- 4.10.3. Content of a Quality Plan for R&D&I Projects

Module 5. Information Security Systems

5.1. Introduction to Information Security

- 5.1.1. Types of Attacks on a Computer System
- 5.1.2. Measures to Ensure Computer System Security
- 5.1.3. Risk Plan, Safety Plan and Contingency Plan

5.2. Security in Computer Networks

- 5.2.1. Online Threats
- 5.2.2. Computer Viruses
- 5.2.3. Social Engineering
- 5.2.4. Hackers

5.3. Ethical Hacking

- 5.3.1. Legal Considerations
- 5.3.2. Vulnerability Scanning
- 5.3.3. Useful Tools

5.4. Design and Management of Secure Networks and Risk Management

- 5.4.1. Server Operating Systems
- 5.4.2. Network Deployment
- 5.4.3. IT Governance, Risk Management and Regulatory Compliance

5.5. Implementation of an ISMS According to ISO 27000 Standards

- 5.5.1. Information Security Management Systems and Benefits
- 5.5.2. Information Security Management Standards
- 5.5.3. Stages of Implementation of an SMSI

5.6. Industrial and Intellectual Property in the Technological Field

- 5.6.1. Industrial Property
- 5.6.2. Trademarks and Domain Names
- 5.6.3. Intellectual Property

5.7. Recruitment and the ICT Sector

- 5.7.1. Contracting Management and Legal Aspects
- 5.7.2. Main Contractual Figures Related to the IT Sector

5.8. Data Protection, Privacy and Confidentiality

- 5.8.1. The Data Protection Regime
- 5.8.2. Labor Relations, Privacy and the Right to Privacy
- 5.8.3. Main Fundamental Rights Related to the IT Environment

Block 2: Strategy and Digital Business

Module 6. New Digital Trends

6.1. The Internet of Things

- 6.1.1. Visions and Challenges
- 6.1.2. Key Technologies
- 6.1.3. Pioneering Projects

6.2. Gamification

- 6.2.1. Business Gamification Techniques
- 6.2.2. Gamification Design Framework
- 6.2.3. Operating Mechanisms and Motivation
- 6.2.4. Benefits and Return on Investment

6.3. Big Data

- 6.3.1. Sectoral Application
- 6.3.2. Business Models
- 6.3.3. New Professions

6.4. Artificial Intelligence

- 6.4.1. Methodological Aspects in Artificial Intelligence
- 6.4.2. Heuristic Search
- 6.4.3. Rule Inference Methods
- 6.4.4. Semantic Networks

6.5. Robotics

- 6.5.1. Robot Morphology
- 6.5.2. Mathematical Tools for Spatial Localization
- 6.5.3. Cinematic Control
- 6.5.4. Criteria for Implementing an Industrial Robot

6.6. Modelling and Simulation

- 6.6.1. Modelling using DEVS
- 6.6.2. Modelling of Random Inputs
- 6.6.3. Generation of Random Inputs
- 6.6.4. Design of Experiments and Optimization

6.7. Implementing Cryptography in Technology Projects

- 6.7.1. Electronic Signature
- 6.7.2. Digital Certificate
- 6.7.3. Data Encryption
- 6.7.4. Practical Applications of Cryptography

6.8. Other Trends

- 6.8.1. 3D Printing
- 6.8.2. Drones
- 6.8.3. Artificial Vision
- 6.8.4. Augmented Reality

Module 7. Strategy and Digital Business
7.1. Digital Strategy

- 7.1.1. Online Business Models
- 7.1.2. Technology Strategy and its Impact on Digital Innovation
- 7.1.3. Strategic Planning of Information Technologies
- 7.1.4. Strategy and The Internet

7.2. Sourcing Strategy

- 7.2.1. Tools to Develop the Strategy for Sourcing
- 7.2.2. Cloud Computing
- 7.2.3. IT Sourcing Management

7.3. IT Governance

- 7.3.1. Analysis of Current Trends and Best Practices in the IT Function
- 7.3.2. Key Management Challenges and Decisions
- 7.3.3. Management Procedures, Requirements, Strategies, and Models for Outsourcing

7.4. Social Business

- 7.4.1. Web 2.0 Strategic Vision and its Challenges
- 7.4.2. Convergence Opportunities and ICT Trends
- 7.4.3. How to Monetize Web 2.0 and Social Media?
- 7.4.4. Mobility and Digital Business

7.5. Business Process Management

- 7.5.1. Management of the Company by Processes
- 7.5.2. Process Reengineering
- 7.5.3. Company Information Systems

7.6. Company Systems based on Internet Collaboration

- 7.6.1. Customer Management Systems: Customer Relationship Management (CRM)
- 7.6.2. Supply Chain Management Systems
- 7.6.3. e-Commerce Systems

7.7. Systems for Knowledge Management and Collaboration in the Business

- 7.7.1. Content Management
- 7.7.2. Collaborative Work and Employee Portals
- 7.7.3. Knowledge Management Policies and Processes

7.8. Effective Organization of the Systems Unit

- 7.8.1. IT Governance
- 7.8.2. Implementation Risks
- 7.8.3. Operating Risks

7.9. B2B Internalization

- 7.9.1. Identification and Contact Tools
- 7.9.2. Digital strategies for B2B internationalization
- 7.9.3. Brand Management for B2B Markets

7.10. B2C Internalization

- 7.10.1. Tools for International BenchMarking
- 7.10.2. Digital Strategies for B2C Internationalization
- 7.10.3. B2C Monitoring

7.11. International Logistics

- 7.11.1. Modes of International Logistics
- 7.11.2. Logistics with Marketplaces
- 7.11.3. Dropshipping Logistics

Module 8. Social Media and Community Management
8.1. Web 2.0 or the Social Web

- 8.1.1. Organization in the Age of Conversation
- 8.1.2. Web 2.0 Is All About People
- 8.1.3. New Environments and New Content

8.2. Digital Communication and Reputation

- 8.2.1. Crisis Management and Online Corporate Reputation
- 8.2.2. Online Reputation Report
- 8.2.3. Netiquette and Good Practices on Social Media
- 8.2.4. Branding and Networking 2.0

8.3. General, Professional, and Microblogging Platforms

- 8.3.1. Facebook
- 8.3.2. LinkedIn
- 8.3.3. Twitter

8.4. Video, Image, and Mobility Platforms

- 8.4.1. YouTube
- 8.4.2. Instagram
- 8.4.3. Flickr
- 8.4.4. Vimeo
- 8.4.5. Pinterest

8.5. Corporate Blogging

- 8.5.1. How to Create a Blog
- 8.5.2. How to Create a Content Plan for Your Blog
- 8.5.3. Content Curation Strategy

8.6. Social Media Strategies

- 8.6.1. Corporate Communication Plan 2.0
- 8.6.2. Corporate PR and Social Media
- 8.6.3. Analysis and Evaluation of Results

8.7. Community Management

- 8.7.1. Functions, Duties, and Responsibilities of the Community Manager
- 8.7.2. Social Media Manager
- 8.7.3. Social Media Strategist

8.8. Social Media Plan

- 8.8.1. Designing a Social Media Plan
- 8.8.2. Defining the Strategy to Be Followed in Each Medium
- 8.8.3. Contingency Protocol in Case of Crisis

Module 9. Data Science and Big Data

9.1. Data Science and Big Data

- 9.1.1. Impact of Big Data and Data Science on Business Strategy
- 9.1.2. Introduction to Command Line
- 9.1.3. Data Science Problems and Solutions

9.2. Data Hacking Languages

- 9.2.1. SQL Databases
- 9.2.2. Introduction to Python
- 9.2.3. Programming in R

9.3. Statistics

- 9.3.1. Introduction to Statistics
- 9.3.2. Linear and Logistic Regression
- 9.3.3. PCA and Clustering

9.4. Machine Learning

- 9.4.1. Model Selection and Regularization
- 9.4.2. Random Trees and Forests
- 9.4.3. Processing Natural Language

9.5. Big Data

- 9.5.1. Hadoop
- 9.5.2. Spark
- 9.5.3. Collaborative Recommendation and Filtering Systems

9.6. Data Science Success Stories

- 9.6.1. Customer Segmentation Using the RFM Model
- 9.6.2. Experiment Design Application
- 9.6.3. Supply Chain Value: Forecasting
- 9.6.4. Business Intelligence

9.7. Hybrid Architectures in Big Data

- 9.7.1. Lambda Architecture
- 9.7.2. Kappa Architecture
- 9.7.3. Apache Flink and Practical Implementations
- 9.7.4. Amazon Web Services

9.8. Big Data in the Cloud

- 9.8.1. AWS: Kinesis
- 9.8.2. AWS: DynamoDB
- 9.8.3. Google Cloud Computing
- 9.8.4. Google BigQuery

Module 10. Web Design, Usability and User Experience

10.1. UX Design

- 10.1.1. Information Architecture
- 10.1.2. SEO and Analytics for UX
- 10.1.3. Landing Pages

10.2. Technical Terms in UX Design

- 10.2.1. Wireframe and Components
- 10.2.2. Interaction Pattern and Navigation Flow
- 10.2.3. User Profile
- 10.2.4. Process and Process Funnel

10.3. Research

- 10.3.1. Research in Interface Design Projects
- 10.3.2. Qualitative and Quantitative Approach
- 10.3.3. Announce the Results of the Research

10.4. Digital Design

- 10.4.1. Digital Prototype
- 10.4.2. Axure and Responsive
- 10.4.3. Interaction Design and Visual Design

10.5. User Experience

- 10.5.1. User Focused Design Methodology
- 10.5.2. User Research Techniques
- 10.5.3. Involve the Customer in the Process
- 10.5.4. Shopping Experience Management

10.6. Designing the User Experience Strategy

- 10.6.1. Content Trees
- 10.6.2. High-Fidelity Wireframes
- 10.6.3. Component Maps
- 10.6.4. Usability Guides

10.7. Usability Evaluation

- 10.7.1. Usability Evaluation Techniques
- 10.7.2. Viewing Data
- 10.7.3. Presentation of Data

10.8. Customer Value and Customer Experience Management

- 10.8.1. Use of Narratives and Storytelling
- 10.8.2. Co-Marketing as a Strategy
- 10.8.3. Content Marketing Management
- 10.8.4. The ROI of Customer Experience Management



07

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



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.

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

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.



08

Our Students' Profiles

The Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer) is a program aimed at technology professionals who want to update their knowledge, discover new ways of managing technology and advance in their careers. Thanks to TECH's advanced teaching methodology, you will be able to access teaching contents specifically designed to turn you into a prestigious Chief Technical Officer.





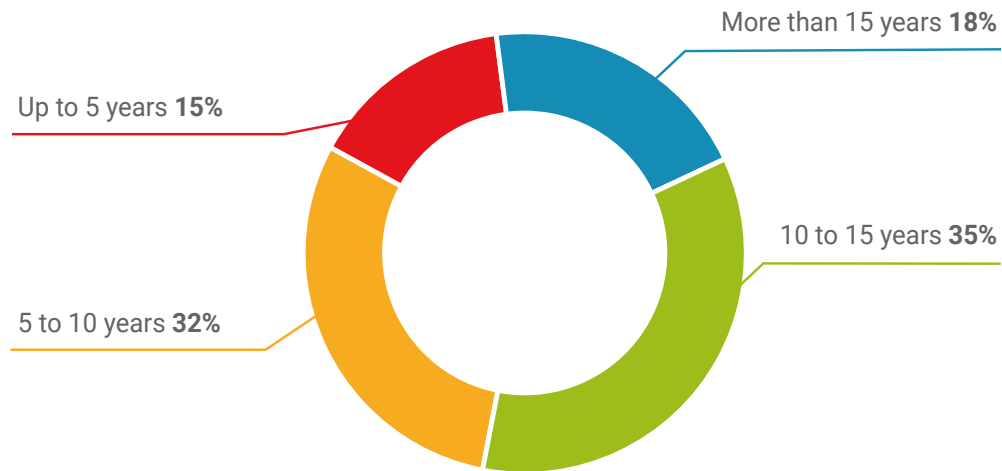
“

If you have experience in the financial sector and are looking for an interesting career boost while continuing to work, then this is the program for you"

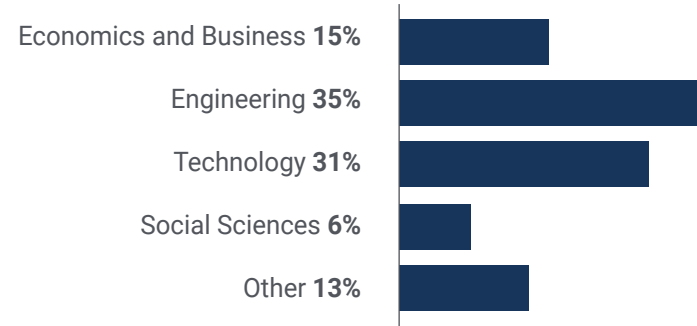
Average Age

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

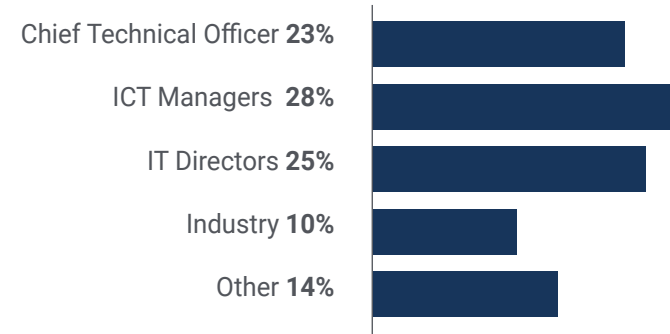
Years of Experience



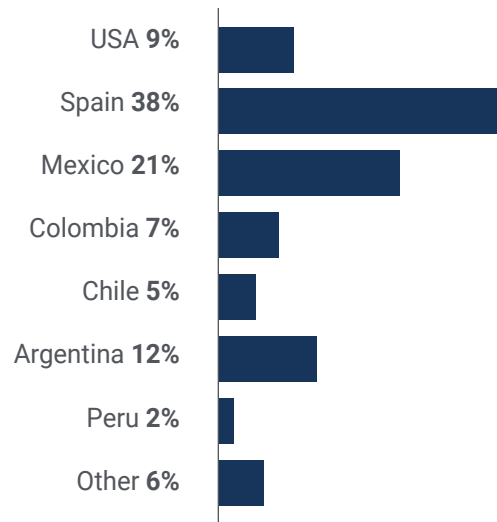
Training



Academic Profile



Geographical Distribution



Ana Rubio

Chief Technical Officer

"I am a computer engineer and after six years working as a programmer and project analyst, I found this program which provided the opportunity to turn my professional career around. My experience was very positive. This Executive Master's Degree lays the foundations of management in the business world, which are the fundamental pillars of the CTO's daily work"

09

Course Management

TECH has professionals specialized in each area of knowledge, who contribute their work experience to this program. A multidisciplinary team with recognized prestige has joined forces to offer students all its knowledge in this field.



“

Our teaching team on this Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer), will help you achieve success in your profession”

International Guest Director

A technology leader with decades of experience in major technology multinationals, Rick Gauthier has developed prominently in the field of cloud services and end-to-end process improvement. He has been recognized as a leader and manager of highly efficient teams, showing a natural talent for ensuring a high level of engagement among his employees.

He possesses innate gifts in strategy and executive innovation, developing new ideas and backing his success with quality data. His background at Amazon has allowed him to manage and integrate the company's IT services in the United States. At Microsoft he has led a team of 104 people, responsible for providing corporate-wide IT infrastructure and supporting product engineering departments across the company.

This experience has allowed him to stand out as a high-impact manager with remarkable abilities to increase efficiency, productivity and overall customer satisfaction.



D. Gauthier, Rick

- Regional IT Director - Amazon, Seattle
- Senior Program Manager at Amazon
- Vice President, Wimmer Solutions
- Senior Director of Productive Engineering Services at Microsoft
- Degree in Cybersecurity from Western Governors University
- Technical Certificate in Commercial Diving from Divers Institute of Technology
- B.S. in Environmental Studies from The Evergreen State College

“

Thanks to TECH, you will be able to learn with the best professionals in the world”

Management



Mr. Santana, Gustavo

- ♦ Engineer General Manager of Multiconversión Roi Agency
- ♦ Consulting and implementation of digital strategies aimed at profitability



10

Impact on Your Career

TECH is aware that studying a program like this entails great economic, professional and, of course, personal investment. The ultimate goal of this great effort should be to achieve professional growth. For this reason, TECH places all its resources within the student's reach, so that they can specialize in a high-demand sector, achieving a benefit for their career without having to make a great effort.



“

You will manage your organization's hybrid architectures in Big Data, R&D certifications and web design in such a way that you will become indispensable within your organization”

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

The Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer) of TECH Technological University is an intensive program that prepares students to face the challenges and business decisions at the technological level, both nationally and internationally. Its main objective is to promote your personal and professional growth, helping you achieve success.

If you want to improve yourself, make a positive change at a professional level and interact with the best, this is the place for you.

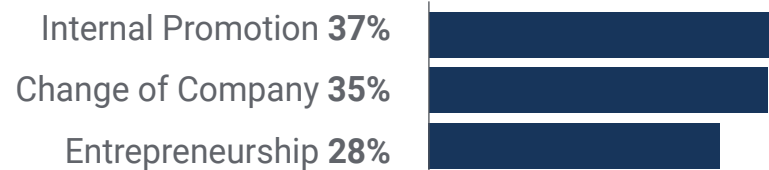
At TECH we are committed to quality specialization, so that our students achieve professional success. This program is an example of this

This program will give you the necessary tools to develop professionally in IT management and leadership

When the change occurs



Type of change



Salary increase

This program represents a salary increase of more than **25%** for our students.



11

Benefits for Your Company

The MBA in IT Management (CTO, Chief Technical Officer) contributes to elevate the organization's talent to its maximum potential, through the specialization of high-level leaders. Therefore, participating in this academic program will lead to improvement not only on a personal level, but above all, on a professional level, improving the professional skills and management skills of the student. In addition, joining TECH's educational community is a unique opportunity to access a powerful network of contacts in which to find future professional partners, customers or suppliers.



“

It offers your business a global vision of the sector, achieving both short- and long-term benefits”

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

01

Intellectual Capital and Talent Growth

Bring new concepts, strategies and perspectives to the company that can lead to relevant changes in the organization

02

Retaining High-Potential Executives to Avoid Talent Drain

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

03

Building Agents of Change

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

You will be able to work on a current project or develop new projects in the field of R&D or Business Development within the company

06

Increased Competitiveness

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

12 Certificate

The MBA in IT Management (CTO, Chief Technical Officer) guarantees students, in addition to the most rigorous and up-to-date education, access to an Executive Master's Degree issued by TECH Technological University.



“

Successfully complete this program and receive your university certificate without travel or laborious paperwork”

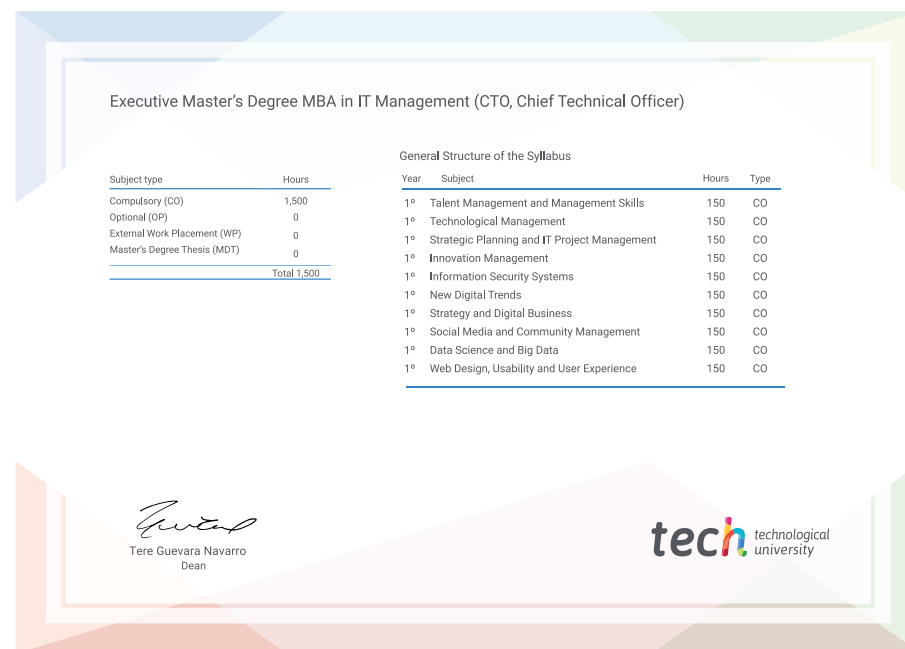
This **Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer)** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Executive Master's Degree** certificate issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Executive Master's Degree, and it meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer)**

Official N° of Hours: **1,500 h.**



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



Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer)

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Executive Master's Degree MBA in IT Management (CTO, Chief Technical Officer)

