Postgraduate Diploma
Information Security Systems

tech technological university

Postgraduate Diploma
Information Security
Systems

» Modality: **online**
» Duration: **6 months**
» Certificate: **TECH Technological University**
» Dedication: **16h/week**
» Schedule: **at your own pace**
» Exams: **online**
» Target Group: **Graduates and professionals with demonstrable experience in technological areas**

Website: **www.techtitute.com/us/school-of-business/postgraduate-diploma/postgraduate-diploma-information-security-systems**

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01
Welcome

In recent years, cyber-attacks on the databases and computer systems of businesses have multiplied, which has led to a greater demand for experts in computer security, specifically in the protection of the information contained in servers and databases that may be especially sensitive. TECH, aware of this problem, has developed a complete program that not only instructs its students in the latest computer security methods, but also provides them with leadership and management tools with which to lead their own information security teams and consequently qualify for higher paying and more prestigious positions.

Postgraduate Diploma in Information Security Systems.
TECH Technological University

You will be a benchmark leader in information security in the IT industry thanks to the advanced knowledge that TECH gives you"

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.

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 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 ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.

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"

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 program aims to consolidate the student's managerial and leadership skills in information security computer systems. Being a niche market in constant growth and demand, students will find in this program all the necessary tools to improve their own job prospects.

Thanks to your breadth of skills in both leadership and information security you will access the best management positions"

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

The **Postgraduate Diploma in Information Security Systems** qualifies students to:

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

02 Describe protocols of action at corporate level in order to preserve information security

03 Define security preservation strategies at the corporate level

04 Develop IT project management methodologies controlling process and product quality

05 Identify potential risks, errors and security issues at the corporate level

06 Describe different trends in the use and exploitation of information and data

05
Structure and Content

The Postgraduate Diploma in Information Security Systems is structured in such a way that the student acquires all the leadership and IT security competencies in a concise, enjoyable and effective way. The teaching material has been prepared by Postgraduate Diploma experts in the field, who guarantee that the student acquires the most current and avant-garde knowledge in security matters.

Enroll today in this Postgraduate Diploma and start making a difference in your daily work to finally start working in the IT security management position you desire"

Syllabus

This program contains everything the student needs to specialize in the main information security systems as well as in data science, Big Data and strategic planning of IT projects.

This unique and varied set of skills is designed to strengthen the student's candidacy for specific management positions within any type of industry that requires security that is adapted to its databases and individuals with exceptional leadership skills for its teams.

Thanks to the practical teaching, based on real cases proposed by the teaching staff, the student will learn to apply all the knowledge acquired during the program in a contextual way. Therefore, the student begins to improve their own work methodology on security issues even before completing the program.

During the 250 hours of this Postgraduate Diploma, the student will be immersed in real IT security management situations as well as in the planning of high-level IT projects, obtaining a complete and distinguished education.

This Postgraduate Diploma takes place over 6 months and is divided into 3 modules:

Module 1	Strategic Planning and IT Project Management
Module 2	Information Security Systems
Module 3	Data Science and Big Data

Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Diploma in Information Security Systems 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 in your career

Module 1. Strategic Planning and IT Project Management

1.1. Process of Strategic Planning
1.1.1. Phases of the Plan
1.1.2. Conceptual Vision
1.1.3. Organization of Work

1.2. Understanding the Business Strategy
1.2.1. Information Needs
1.2.2. Business Process Mapping
1.2.3. Business Aspirations or Priorities

1.3. Analysis of Current IS/IT
1.3.1. Resource Level and Expenditure/Investment Level Analysis
1.3.2. Analysis of Perceived Quality
1.3.3. Application and Infrastructure Analysis
1.3.4. Analysis of the Environment and Competitors

1.4. Strategy Formulation
1.4.1. Aspirations and Strategic Directions of the Plan
1.4.2. The Target IS/IT Model
1.4.3. Strategic Initiatives
1.4.4. Implications of the Plan

1.5. Implementation Plan
1.5.1. Implementation Approach
1.5.2. Project Plan

1.6. Information Systems Projects
1.6.1. IT Project Planning
1.6.2. Project Follow-Up and Closure
1.6.3. Project Management Strategies

1.7. Management of Technological Resources
1.7.1. Technological Offer
1.7.2. Time and Cost Management
1.7.3. Agile Project Management and Productivity

1.8. Lean IT
1.8.1. Lean IT and Lean Thinking
1.8.2. The Basic Principles of Lean Management
1.8.3. Improvement and Problem-Solving Groups
1.8.4. Maintenance and Quality Management Forms

Module 2. Information Security Systems

2.1. Introduction to Information Security
2.1.1. Types of Attacks on a Computer System
2.1.2. Measures to Ensure Computer System Security
2.1.3. Risk Plan, Safety Plan and Contingency Plan

2.2. Security in Computer Networks
2.2.1. Online Threats
2.2.2. Computer Viruses
2.2.3. Social Engineering
2.2.4. Hackers

2.3. Ethical Hacking
2.3.1. Legal Considerations
2.3.2. Vulnerability Scanning
2.3.3. Useful Tools

2.4. Design and Management of Secure Networks and Risk Management
2.4.1. Server Operating Systems
2.4.2. Network Deployment
2.4.3. IT Governance, Risk Management and Regulatory Compliance

2.5. Implementation of an ISMS According to iso 27000 Standards
2.5.1. Information Security Management Systems and Benefits
2.5.2. Information Security Management Standards
2.5.3. Stages of Implementation of an SMSI

2.6. Industrial and Intellectual Property in the Technological Field
2.6.1. Industrial Property
2.6.2. Trademarks and Domain Names
2.6.3. Intellectual Property

2.7. Recruitment and the ICT Sector
2.7.1. Contracting Management and Legal Aspects
2.7.2. Main Contractual Figures Related to the IT Sector

2.8. Data Protection, Privacy and Confidentiality
2.8.1. The Data Protection Regime in Spain
2.8.2. Labor Relations, Privacy and the Right to Privacy
2.8.3. Main Fundamental Rights Related to the IT Environment

Module 3. Data Science and Big Data

3.1. Data Science and Big Data
3.1.1. Impact of Big Data and Data Science on Business Strategy
3.1.2. Introduction to Command Line
3.1.3. Data Science Problems and Solutions

3.2. Data Hacking Languages
3.2.1. SQL Databases
3.2.2. Introduction to Python
3.2.3. Programming in R

3.3. Statistics
3.3.1. Introduction to Statistics
3.3.2. Linear and Logistic Regression
3.3.3. PCA and Clustering

3.4. Machine Learning
3.4.1. Model Selection and Regularization
3.4.2. Random Trees and Forests
3.4.3. Processing Natural Language

3.5. Big Data
3.5.1. Hadoop
3.5.2. Spark
3.5.3. Collaborative Recommendation and Filtering Systems

3.6. Data Science Success Stories
3.6.1. Customer Segmentation Using the RFM Model
3.6.2. Experiment Design Application
3.6.3. Supply Chain Value: Forecasting
3.6.4. Business Intelligence

3.7. Hybrid Architectures in Big Data
3.7.1. Lambda Architecture
3.7.2. Kappa Architecture
3.7.3. Apache Flink and Practical Implementations
3.7.4. Amazon Web Services

3.8. Big Data in the Cloud
3.8.1. AWS: Kinesis
3.8.2. AWS: DynamosDB
3.8.3. Google Cloud Computing
3.8.4. Google BigQuery

This is the opportunity you were waiting for to specialize in a booming IT niche and, in addition, consolidate your leadership and project management skills"

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

3%

30%

15%

4%

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.

Our Students' Profiles

Students who decide to take this Postgraduate Diploma come mainly from the IT field, although those interested in technology or IT project management also find TECH's educational program useful. Due to the variety of academic profiles, students have an excellent opportunity to create new professional relationships that will help them to improve their own work level.
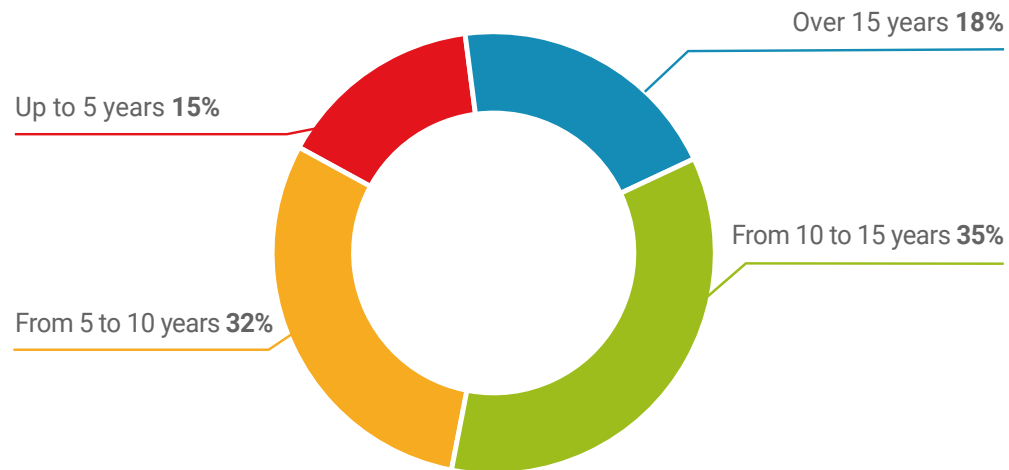
If you have experience in the IT sector and are looking for a substantial improvement to your work, this is the program you are looking for"

Average Age

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

Years of Experience

Over 15 years **18%**

Up to 5 years **15%**

From 10 to 15 years **35%**

From 5 to 10 years **32%**

Training

Economics and Business **15%**

Engineering **35%**

Technology **31%**

Social Sciences **6%**

Other **13%**

Academic Profile

Chief Technical Officer **23%**

ICT Managers **28%**

IT Directors **25%**

Industry **10%**

Other **14%**
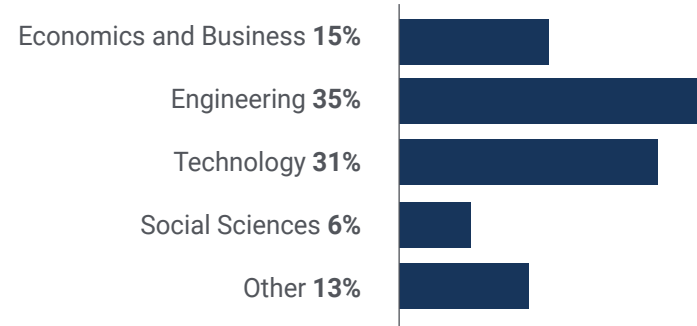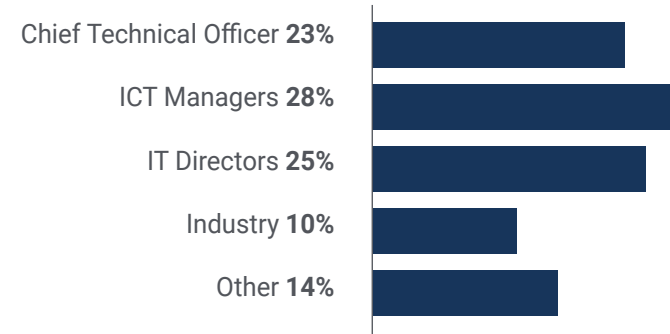
Geographical Distribution

- USA **9%**
- Spain **38%**
- Mexico **21%**
- Colombia **7%**
- Chile **5%**
- Argentina **12%**
- Peru **2%**
- Other **6%**
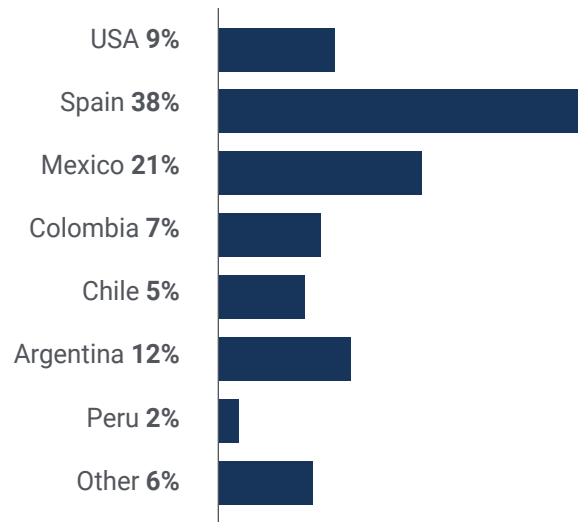
Ana Rubio

Chief Information Officer

"Thanks to this TECH specialization I was able to improve my position within the internal work team, taking charge of more important projects, which ended up generating greater confidence in the corporate organization chart and a promotion to the position of head of security"

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.

tech

"

Our Postgraduate Diploma teaching team, experts in Information Security Systems, 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

Impact on Your Career

TECH is aware of the effort their students must make to pursue this program, so they ensure that the positive impact on the student's career is as great as possible. Thanks to an advanced specialization in information security and unique leadership skills training, the graduate will see their job prospects increase considerably by being able to improve their own professional performance.

Enroll now in this Postgraduate Diploma and do not miss the opportunity to distinguish yourself as a leader in information security in the IT sector"

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

TECH Technological University's Postgraduate Diploma in Information Security Systems prepares its students for the main challenges, both in terms of security and leadership, that they will have to face at the end of the program. The work they have to do is demanding and TECH makes sure that they acquire the best possible competencies and skills in their field, making them reputable professionals.

At TECH we are committed to quality specialization so that our students achieve professional success, and this Postgraduate Diploma 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

During the program	During the first year	After 2 years
31%	**43%**	**26%**

Type of change

Internal Promotion **37%**

Change of Company **35%**

Entrepreneurship **28%**
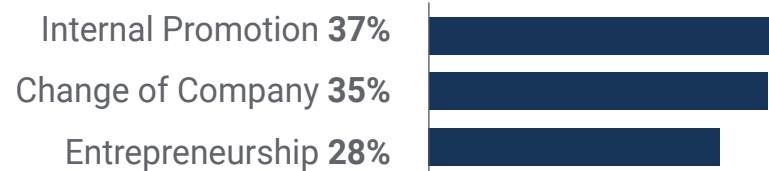
Salary increase

This program represents a salary increase of more than **25,22%** for our students.

Salary before	A salary increase of	Salary after
$77,000	**25.22%**	**$110,000**

10
Benefits for Your Company

A cyber-attack to the information systems of a business not only poses danger to the sensitive data it may house, but it is also a high economic cost to make up for the failures and regain control of the information. The professional graduate of this program brings security and stability to the most ambitious IT projects, as well as unique management characteristics to lead all kinds of technology development teams.

You will become the linchpin in any business scheme that handles particularly sensitive data and information"

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 bring about relevant changes in the organization.

02

Retaining High-Potential Executives to Avoid Talent drain

This program strengthens the link between the company and the manager 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 be in contact with the main markets of 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 our students with the skills to take on new challenges and drive the organization forward.

11

Certificate

The Postgraduate Diploma in Information Security Systems guarantees,
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 diploma without travel or laborious paperwork"

This **Postgraduate Diploma in Information Security Systems** 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 Information Security Systems**
Official Nº of hours: **250 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

Information Security Systems

This is a qualification awarded by this University, equivalent to 250 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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