

Postgraduate Certificate Forensic Analysis in Cybersecurity





Postgraduate Certificate Forensic Analysis in Cybersecurity

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/school-of-business/postgraduate-certificate/forensic-analysis-cybersecurity

Index

01

Welcome

p. 4

02

Why Study at TECH?

p. 6

03

Why Our Program?

p. 10

04

Objectives

p. 14

05

Structure and Content

p. 18

06

Methodology

p. 24

07

Our Students' Profiles

p. 32

08

Course Management

p. 36

09

Impact on Your Career

p. 40

10

Benefits for Your Company

p. 44

11

Certificate

p. 48

01 Welcome

Cybersecurity is an issue of growing concern given technological advances, as it is more common for companies to possess particularly sensitive data to conduct their daily business. If this data is compromised by a cyber-attack, protocols must be put in place to prevent further leaks. Forensic analysts are in charge of this task, as they are essential figures in the cybersecurity departments of most modern companies. TECH offers this program for all IT professionals who want to focus their careers on this new market niche, where they can grow professionally and obtain more prestigious positions thanks to an innovative and cutting-edge education.



Postgraduate Certificate in Forensic Analysis in Cybersecurity
TECH Technological University



“

*Improve your company's cybersecurity and
achieve a better position in your IT department”*

02

Why Study at TECH?

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



“

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

At TECH Technological University



Innovation

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

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



The Highest Standards

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

95% | of TECH students successfully complete their studies



Networking

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

100,000+
executives trained each year

200+
different nationalities



Empowerment

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

500+ | collaborative agreements with leading companies



Talent

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

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



Multicultural Context

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

TECH students represent more than 200 different nationalities.

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.



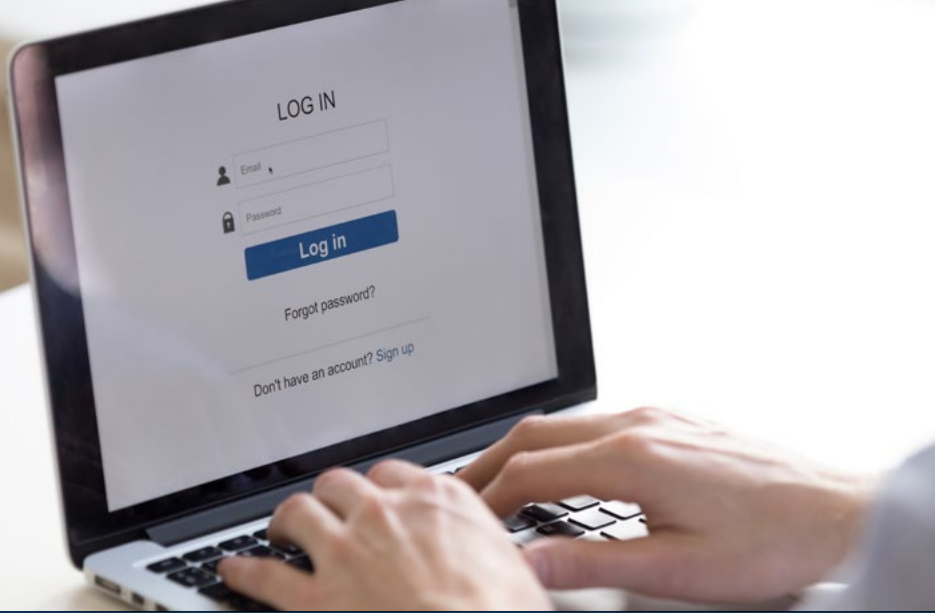
Academic Excellence

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 groundbreaking 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"

03

Why Our Program?

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

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



“

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

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

01

A significant career boost

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

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

02

Develop a strategic and global vision of companies

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

Our global vision of companies will improve your strategic vision.

03

Consolidate the student's senior management skills

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

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

04

Take on new responsibilities

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

45% of graduates are promoted internally.

05

Access to a powerful network of contacts

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

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

06

Thoroughly develop business projects

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

20% of our students develop their own business idea.

07

Improve soft skills and management skills

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

Improve your communication and leadership skills and enhance your career.

08

Be part of an exclusive community

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

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

04 Objectives

This TECH Technological University program has been developed by a team of highly qualified professors with the main objective of offering academic specialization in forensic cybersecurity to provide greater guarantees to companies. In this way, future graduates will be better positioned when applying for management roles within their respective organizations.



“

Enroll today in this Postgraduate Certificate to increase your chances of career advancement in cybersecurity”

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

The Postgraduate Certificate in Forensic Analysis in Cybersecurity qualifies students to:

01

Collect all the existing evidence and data to carry out forensic reports, conduct data analysis and relate it appropriately

04

Identify the different elements that expose a crime

02

Preserve evidence to carry out forensic reports

05

Generate specialized knowledge to obtain data from different media before they are lost

03

Duly submit forensic reports

06

Recover data that has been intentionally deleted

07

Analyze system logs and records

08

Determine how data is duplicated so as not to alter the originals

09

Substantiate evidence for consistency

10

Generate solid and seamless reports

11

Present findings in a coherent manner

12

Establish how to defend the report to the appropriate authority

05

Structure and Content

The structure of this Postgraduate Certificate is designed to provide students with all the forensic tools in cybersecurity as accurately and effectively as possible by means of an educational methodology that allows students to take 100% advantage of all the teaching material provided. Thanks to these advanced techniques, students will immediately notice positive changes in their work methodology even before finishing the program.



“

This Postgraduate Certificate in Forensic Analysis in Cybersecurity is a direct qualification you can access without writing a final paper”

Syllabus

The Postgraduate Certificate in Forensic Analysis in Cybersecurity is a highly intensive program that prepares students to face decisions and real business situations in computer security.

Throughout this 150-hour program, students will be presented with real cases of computer attacks. By applying the forensic knowledge acquired in this Postgraduate Certificate, they will determine the origin of the attack and how to prevent it in the future.

Thus, this program is presented as an excellent academic opportunity to learn the intricacies of forensic analytics in cybersecurity with the best possible educational methodology and in a 100% online format.

This Postgraduate Certificate takes place over six weeks and is divided into one module:

Module 1

Forensic Analysis



Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in Forensic Analysis in Cybersecurity completely online. Over the course of 6 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. Forensic Analysis

1.1. Data Acquisition and Duplication

- 1.1.1. Volatile Data Acquisition
 - 1.1.1.1. System Information
 - 1.1.1.2. Network Information
 - 1.1.1.3. Volatility Order
- 1.1.2. Static Data Acquisition
 - 1.1.2.1. Creating a Duplicate Image
 - 1.1.2.2. Preparation of a Chain of Custody Document
- 1.1.3. Methods for Validation of Acquired Data
 - 1.1.3.1. Methods for Linux
 - 1.1.3.2. Methods for Windows

1.2. Evaluation and Defeat of Anti-Forensic Techniques

- 1.2.1. Objectives of Anti-Forensic Techniques
- 1.2.2. Data Deletion
 - 1.2.2.1. Deletion of Data and Files
 - 1.2.2.2. File Recovery
 - 1.2.2.3. Recovery of Deleted Partitions
- 1.2.3. Password Protection
- 1.2.4. Steganography
- 1.2.5. Secure Device Wiping
- 1.2.6. Encryption

1.3. Operating System Forensics

- 1.3.1. Windows Forensics
- 1.3.2. Linux Forensics
- 1.3.3. Mac Forensics

1.4. Network Forensics

- 1.4.1. Logs Analysis
- 1.4.2. Data Correlation
- 1.4.3. Network Research
- 1.4.4. Steps in Network Forensics

1.5. Web Forensics

- 1.5.1. Investigation of Web Attacks
- 1.5.2. Attack Detection
- 1.5.3. IP Address Location

1.6. Forensic Database Analysis

- 1.6.1. Forensic Analysis in MSSQL
- 1.6.2. MySQL Forensic Analysis
- 1.6.3. PostgreSQL Forensic Analysis
- 1.6.4. Forensic Analysis in MongoDB

1.7. Cloud Forensics

- 1.7.1. Types of Crimes in the Cloud
 - 1.7.1.1. Cloud as Subject
 - 1.7.1.2. Cloud as an Object
 - 1.7.1.3. Cloud as a Tool
- 1.7.2. Challenges of Cloud Forensics
- 1.7.3. Researching Storage Services on the Cloud
- 1.7.4. Forensic Analysis Tools for Cloud

1.8. Investigation of Email Crimes

- 1.8.1. Mailing Systems
 - 1.8.1.1. Mail Clients
 - 1.8.1.2. Mail Server
 - 1.8.1.3. SMTP Server
 - 1.8.1.4. POP3 Server
 - 1.8.1.5. IMAP4 Server
- 1.8.2. Mailing Crimes
- 1.8.3. Mail Message
 - 1.8.3.1. Standard Headers
 - 1.8.3.2. Extended Headers
- 1.8.4. Steps for the Investigation of these Crimes
- 1.8.5. E-Mail Forensic Tools

1.9. Mobile Forensic Analysis

- 1.9.1. Cellular Networks
 - 1.9.1.1. Types of Networks
 - 1.9.1.2. CDR Contents
- 1.9.2. Subscriber Identity Module (SIM)
- 1.9.3. Logical Acquisition
- 1.9.4. Physical Acquisition
- 1.9.5. File System Acquisition

1.10. Forensic Report Writing and Reporting

- 1.10.1. Important Aspects of a Forensic Report
- 1.10.2. Classification and Types of Reports
- 1.10.3. Guide to Writing a Report
- 1.10.4. Presentation of the Report
 - 1.10.4.1. Prior Preparation for Testifying
 - 1.10.4.2. Deposition
 - 1.10.4.3. Dealing with the Media

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 TECH Technological University program is aimed at business professionals who understand the need to expand their training to related work areas, which can add value to their daily performance and to their company in general. This Postgraduate Certificate in Forensic Analysis in Cybersecurity will be a unique opportunity for such professionals to learn to detect and understand why computer damage may have occurred to find a solution and prevent similar future damage. Future graduates will find their value increased when being considered for management positions in IT.





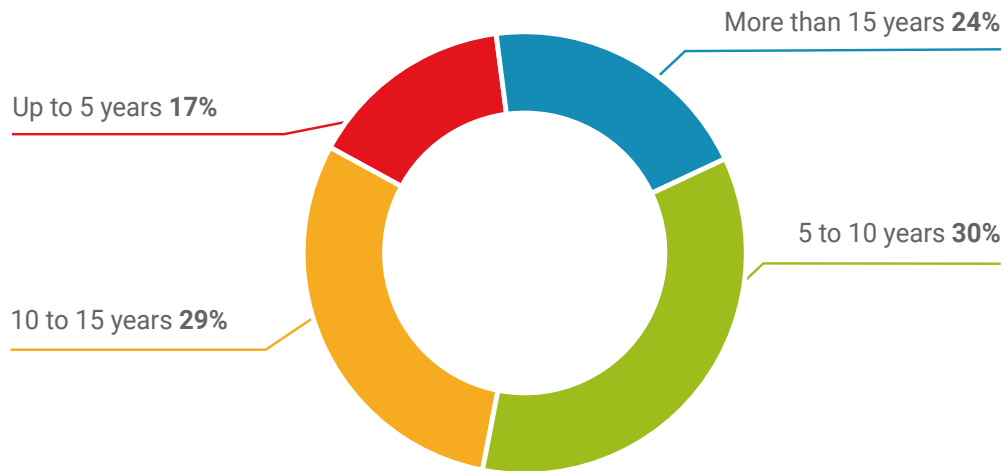
“

TECH alumni have the same professional goals as you. Build a successful network of contacts by enrolling in this program today”

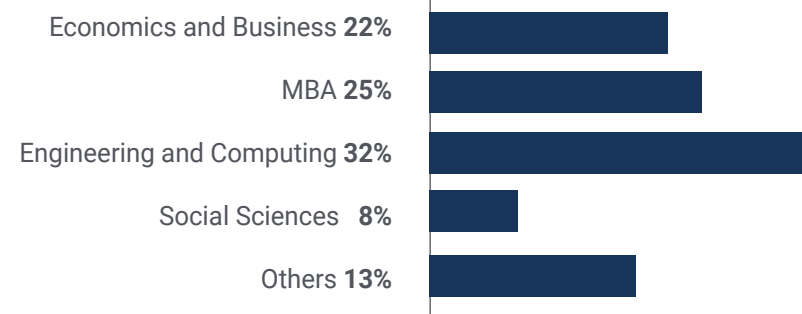
Average Age

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

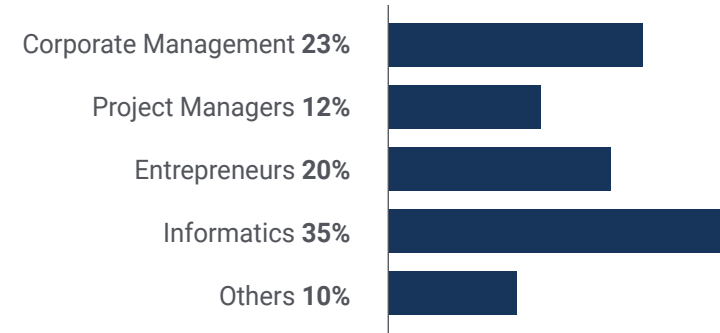
Years of Experience



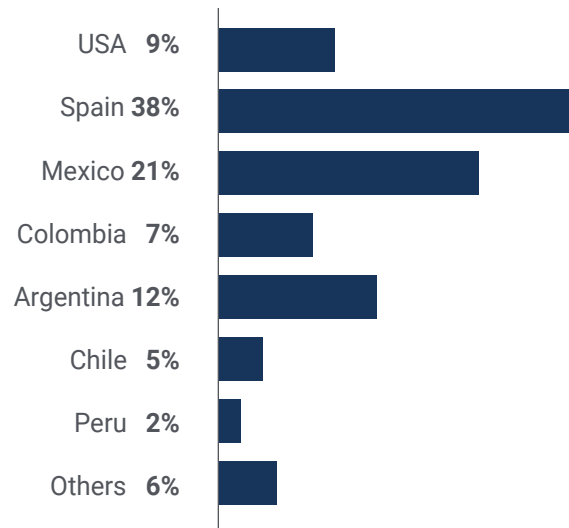
Training



Academic Profile



Geographical Distribution



Jaime Díaz

Chief Revenue Officer

"Completing this Postgraduate Certificate has provided me with the knowledge I needed to detect potential vulnerabilities in our computer systems and to analyze the causes and consequences of potential attacks on our network. There is no doubt in my mind the completeness of the program gave me the skills required to be a successful manager in the field."

08

Course Management

The professors on the program are professionals with extensive experience in the field of forensic analysis in cybersecurity. People who have devoted a large part of their academic life to improving their knowledge in the field and who, aware of the educational needs of business professionals in this area, have come together to present TECH students with the most relevant and comprehensive information available. Professionals who are committed to teaching and who employ the latest educational technologies.



“

Top level professors will teach you how to perform computer forensic analysis”

International Guest Director

Dr. Frederic Lemieux is internationally recognized as an innovative expert and inspirational leader in the fields of **Intelligence, National Security, Internal security, Cybersecurity and Disruptive Technologies**. His constant dedication and relevant contributions in Research and Education position him as a key figure in the promotion of security and the understanding of today's emerging technologies. During his professional career, he has conceptualized and directed cutting-edge academic programs at various renowned institutions, such as the **University of Montreal, George Washington University and Georgetown University**.

Throughout his extensive background, he has published multiple books of great relevance, all related to **criminal intelligence, policing, cyber threats and international security**. He has also contributed significantly to the field of Cybersecurity with the publication of numerous articles in academic journals, which examine crime control during major disasters, counter-terrorism, intelligence agencies and police cooperation. In addition, he has been a panelist and keynote speaker at various national and international conferences, establishing himself as a reference in the academic and professional arena.

Dr. Lemieux has held editorial and evaluative roles in different academic, private and governmental organizations, reflecting his influence and commitment to excellence in his field of expertise. As such, his prestigious academic career has led him to serve as Professor of Practice and Faculty Director of the MPS programs in **Applied Intelligence, Cybersecurity Risk Management, Technology Management and Information Technology Management** at Georgetown University.



Dr. Lemieux, Frederic

- Director of the Master's Degree in Information Technology Management at Georgetown University
- Director of the Master's Degree in Technology Management at Georgetown University
- Director of the Master's Degree in Cybersecurity Risk Management at Georgetown University
- Director of the Master's Degree in Applied Intelligence at Georgetown University
- Professor of Internship at Georgetown University
- PhD in Criminology from the School of Criminology, University of Montreal
- B.A. in Sociology, Minor Degree in Psychology, University of Laval
- Member of, New Program Roundtable Committee, Georgetown University



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

Management



Ms. Fernández Sapena, Sonia

- ♦ Computer Security and Ethical Hacking Trainer National Reference Center of Getafe in Informatics and Telecommunications Madrid
- ♦ Certified E-Council Instructor Madrid
- ♦ Trainer in the following certifications: EXIN Ethical Hacking Foundation and EXIN Cyber & IT Security Foundation Madrid
- ♦ Accredited Expert Trainer, CAM; certificates of professionalism: Computer Security (IFCT0190), Voice and Data Network Management (IFCM0310), Departmental Network Administration (IFCT0410), Alarm Management in Telecommunications Networks (IFCM0410), Voice and Data Network Operator (IFCM0110), and Internet Services Administration (IFCT0509)
- ♦ External Collaborator CSO/SSA (Chief Security Officer/Senior Security Architect) University of the Balearic Islands
- ♦ IT Engineer Alcalá de Henares University. Madrid
- ♦ Master in DevOps: Docker and Kubernetes Cas-Training Madrid
- ♦ Microsoft Azure Security Technologies E-Council Madrid

09

Impact on Your Career

Business professionals who wish to expand their knowledge of cybersecurity must be aware of the need of continuing education throughout their working lives, as it is a changing field that requires keeping up with updates and new developments. For this reason, those who enrol in this Postgraduate Certificate will improve their careers and compete with greater confidence and guarantees of success.



“

*A program that will take you to top management
in your organization's IT security department”*

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

The TECH Technological University Postgraduate Certificate in Forensic Analysis in Cybersecurity is an intensive and highly valuable program aimed at improving students' professional skills in a fiercely competitive field. Undoubtedly, it is a unique opportunity to improve professionally, but also personally, as it involves effort and dedication.

Those who wish to improve themselves, achieve a positive change at a professional level and interact with the best, will find their place at TECH.

A world-class program that will be instrumental in improving your employability.

Achieve the promotion you seek thanks to the superior knowledge this Postgraduate Certificate will provides.

When the change occurs



Type of change



Salary increase

This program represents a salary increase of more than **25.22%** for our students.



10

Benefits for Your Company

Completing this TECH Technological University Postgraduate Certificate in Forensic Analysis in Cybersecurity will add a distinct value to our students' education, as it will allow them to work with the most updated tools on the market. This will consequently be a great contribution to the companies where they work, as they will perform more confidently and efficiently.





“

Improve your company's IT security, specialize in cybersecurity forensics and increase the productive results of your business projects in virtual threat analytics”

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

01

Intellectual Capital and Talent Growth

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

02

Retaining high-potential executives to avoid talent drain

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

03

Building agents of change

You will be able to make decisions in times of uncertainty and crisis, in turn 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.

11

Certificate

The Postgraduate Certificate in Forensic Analysis in Cybersecurity guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





“

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

This program will allow you to obtain your **Postgraduate Certificate in Forensic Analysis in Cybersecurity** endorsed by **TECH Global University**, the world's largest online university.

Tech Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **Tech Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Forensic Analysis in Cybersecurity**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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