

Postgraduate Certificate Ethical Hacking





Postgraduate Certificate Ethical Hacking

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

Website: www.techtitute.com/in/school-of-business/postgraduate-certificate/ethical-hacking

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01 Welcome

No company today is exempt from suffering a cyber-attack and the various consequences it entails. Regardless of size, every company is exposed to information theft, blackmail, sabotage, etc. That is why it is necessary to conduct vulnerability studies to determine the attack surface of a software environment, and why these periodic risk studies are increasing in number. Each company should analyze whether it complies with the standards and legislation of the country where it is located and should be aware of the potential damage they may suffer, in both financial and reputational terms, for instance. To improve the knowledge of business professionals in the field, TECH has designed this program on ethical hacking, which presents various tools and methodologies to conduct computer vulnerability analyses and, therefore, it provides an extensive set of specialized knowledge to work toward increasing the security of computer systems.



Postgraduate Certificate in Ethical Hacking.
TECH Technological University



“

Completing this program will enable business professionals to detect potential vulnerabilities in their IT systems and apply the most appropriate techniques to address them”

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 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"

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 program has been designed with the main objective of offering students a unique program that will be extremely useful for their professional development, by obtaining specialized knowledge of ethical hacking that will prevent potential online attacks. A goal that TECH meets thanks to a high level academic program and a first class teaching staff, in addition to the most innovative teaching methodology on the market.



“

Learn how to prevent vulnerabilities on your network and ensure that your computer systems are protected against potential attacks”

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

The **Postgraduate Certificate in Ethical Hacking** qualifies student to:

01

Assess the information obtained and develop prevention and hacking mechanisms

02

Establish priorities in the study and resolution of vulnerabilities

03

Test system vulnerability, attack it for preventive purposes and solve the problems that arise

04

Explore IOSINT methods

05

Gather information available in public media



06

Scan networks for active mode information

08

Analyze tools for pentesting performance

09

Catalogue and assess various system vulnerabilities

07

Develop test laboratories

10

Identify the various methodologies used in hacking

05

Structure and Content

The TECH Postgraduate Certificate in Ethical Hacking is a state-of-the-art educational program designed for business professionals to straightforwardly understand how to detect and solve potential network vulnerabilities, effectively protecting company computer systems. A program that will teach students both theoretical and practical content, including the keys to work with ease in this field.



“

*This curriculum will make a difference
in your qualification, providing you
with the keys to stand out in the field”*

Syllabus

The Postgraduate Certificate in Ethical Hacking is an intensive program that prepares students to face challenges and business decisions in computer security. Its content is designed to promote the development of managerial skills that enable more rigorous decision-making in uncertain environments.

Over 150 hours of study, students will analyze a multitude of practical cases through individual work, which will allow them to acquire skills required to develop successfully in their daily practice. It is, therefore, an authentic immersion in real business situations.

This program deals with the different areas of a company in depth, and it is designed for managers to understand cybersecurity from a strategic, international and innovative perspective.

A study plan designed especially for students, focused on their professional development, which prepares them to achieve excellence in the field of information security 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.

The program is carried out in six weeks and is divided into one module:

Module 1

Ethical Hacking



Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in Ethical Hacking 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. Ethical Hacking

1.1. Work Environment

- 1.1.1. Linux Distributions
 - 1.1.1.1. Kali Linux - Offensive Security
 - 1.1.1.2. Parrot OS
 - 1.1.1.3. Ubuntu
- 1.1.2. Virtualization Systems
- 1.1.3. Sandboxes
- 1.1.4. Laboratory Deployment

1.2. Methods

- 1.2.1. OSSTM
- 1.2.2. OWASP
- 1.2.3. NIST
- 1.2.4. PTES
- 1.2.5. ISSAF

1.3. Footprinting

- 1.3.1. Open-Source Intelligence (OSINT)
- 1.3.2. Data Breach and Vulnerability Scanning
- 1.3.3. Use of Passive Tools

1.4. Network Scanning

- 1.4.1. Scanning Tools
 - 1.4.1.1. Nmap
 - 1.4.1.2. Hping3
 - 1.4.1.3. Other Scan Tools
- 1.4.2. Scanning Techniques
- 1.4.3. Firewall and IDS Avoidance Techniques
- 1.4.4. Banner Grabbing
- 1.4.5. Network Diagrams

1.5. Enumeration

- 1.5.1. SMTP User Enumeration
- 1.5.2. DNS User Enumeration
- 1.5.3. NetBIOS and Samba Enumeration
- 1.5.4. LDAP Enumeration
- 1.5.5. SNMP Enumeration
- 1.5.6. Other Enumeration Techniques

1.6. Vulnerability Analysis

- 1.6.1. Vulnerability Scanning Solutions
 - 1.6.1.1. Qualys
 - 1.6.1.2. Nessus
 - 1.6.1.3. CFI LanGuard
- 1.6.2. Vulnerability Scoring Systems
 - 1.6.2.1. CVSS
 - 1.6.2.2. CVE
 - 1.6.2.3. NVD

1.7. Attacks on Wireless Networks

- 1.7.1. Hacking Methodology in Wireless Networks
 - 1.7.1.1. Wi-Fi Discovery
 - 1.7.1.2. Traffic Analysis
 - 1.7.1.3. Aircrack Attacks
 - 1.7.1.3.1. WEP Attacks
 - 1.7.1.3.2. WPA/WPA2 Attacks
 - 1.7.1.4. Evil Twin Attacks
 - 1.7.1.5. WPS Attacks
 - 1.7.1.6. Jamming
- 1.7.2. Wireless Security Tools

1.8. Web Server Hacking

- 1.8.1. Cross Site Scripting
- 1.8.2. CSRF
- 1.8.3. Session Hijacking
- 1.8.4. SQL Injection

1.9. Exploiting Vulnerabilities

- 1.9.1. Use of Known Exploits
- 1.9.2. Use of Metasploit
- 1.9.3. Use of Malware
 - 1.9.3.1. Definition and Scope
 - 1.9.3.2. Malware Generation
 - 1.9.3.3. Antivirus Bypass Solutions

1.10. Persistence

- 1.10.1. Installing Rootkits
- 1.10.2. Using Ncat
- 1.10.3. Use of Scheduled Tasks for Backdoors
- 1.10.4. Creating Users
- 1.10.5. HIDS Detection



“

*A high level program for
professionals seeking excellence”*

06 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"



TECH Business School uses the Case Study to contextualize all content

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

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



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



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

A learning method that is different and innovative

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

“

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

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

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

Relearning Methodology

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

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

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

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

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



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

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



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Classes

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

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



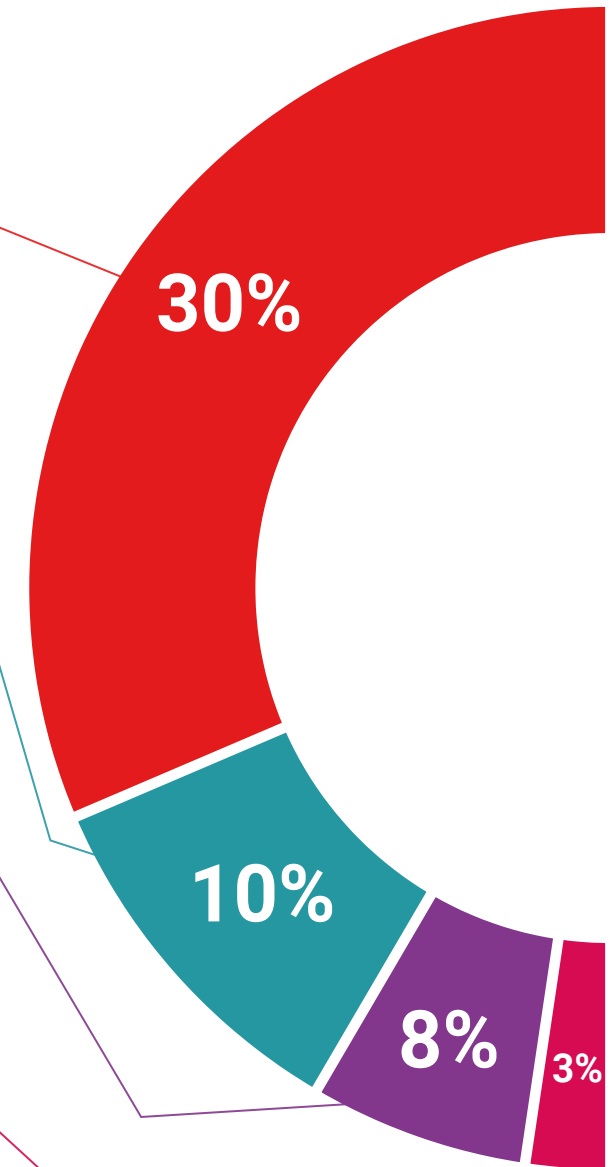
Management Skills Exercises

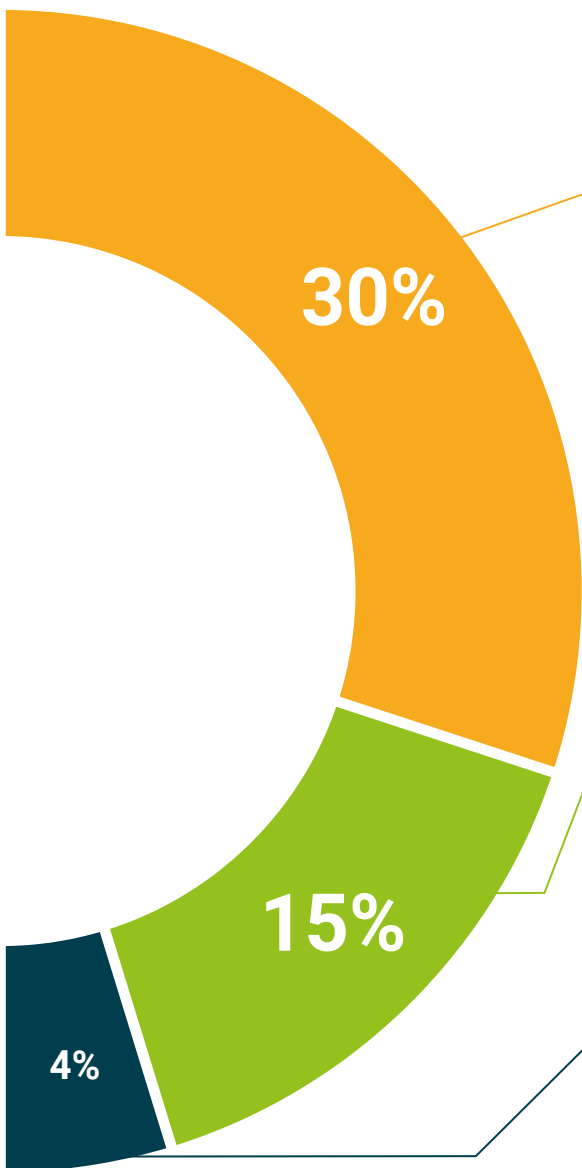
They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.



**Case Studies**

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

**Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



07

Our Students' Profiles

The student profile for this TECH program is business professionals with extensive training and work experience who understand the importance of continuing education throughout their work lives with the main objective of updating their knowledge and improving their daily practice. People who are looking for extra quality in their specialization and who are aware of the dangers of the Internet and the importance of keeping their computer systems protected.



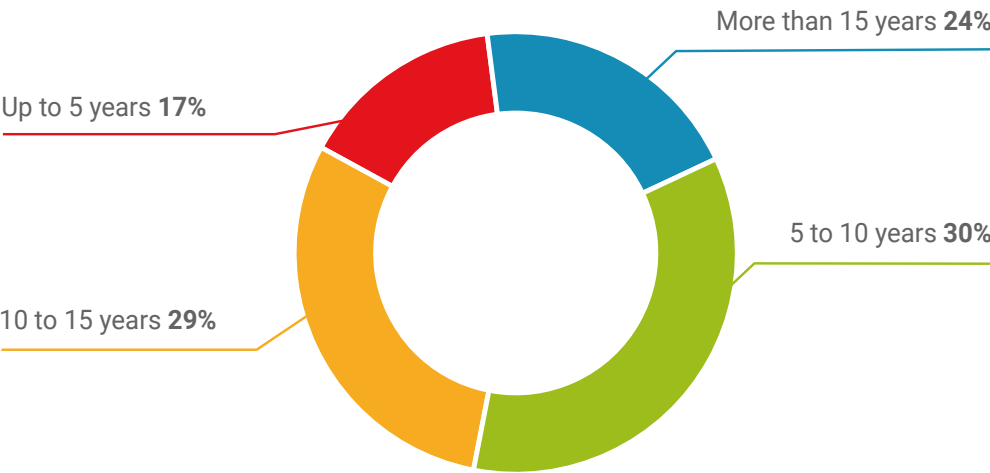
“

TECH students are professionals with extensive experience who understand the importance of continuing education during their working life”

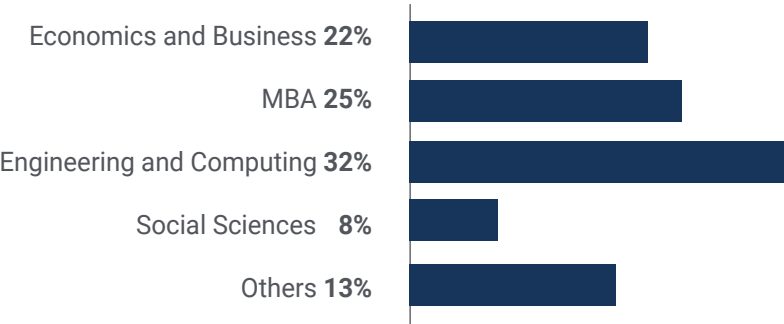
Average Age

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

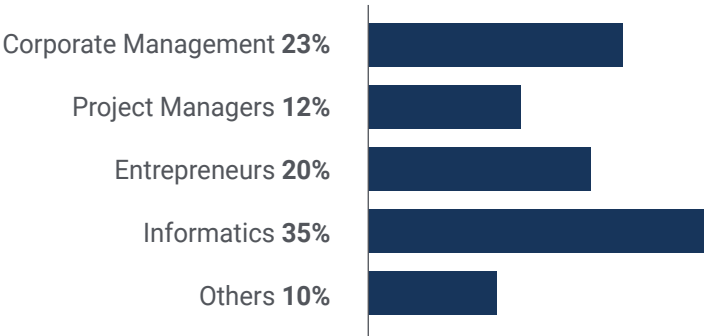
Years of Experience



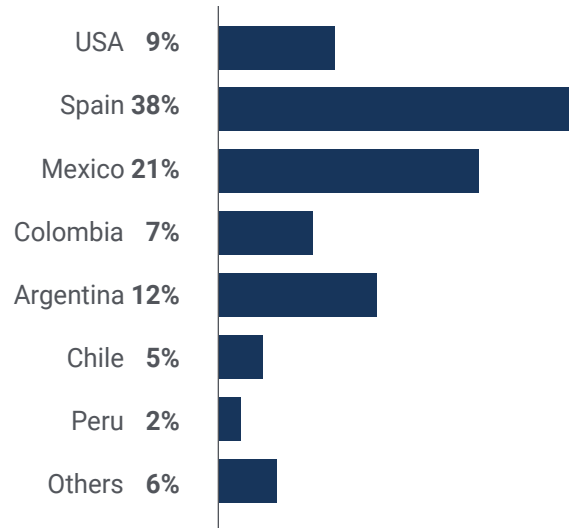
Training



Educational Profile



Geographical Distribution



Jaime Díaz

Chief Revenue Officer

"This program has been a great added value to my CV and my education. I acquired the knowledge I needed of ethical hacking, which helped me detect potential vulnerabilities in my company's computer systems, and solve them to continue to ensure total security. Undoubtedly, a high level program full of updated information"

08

Course Management

This program has been developed by a high level teaching team. Professionals with extensive experience in the field of cybersecurity who have decided to compile the most updated information on ethical hacking for students to specialize in an area of great importance, which will allow them to increase the security protection of their computer systems. Undoubtedly, professors who believe in quality teaching through the most advanced teaching methodologies and new technologies applied to education.



“

*The best professors will teach
you the keys to Ethical Hacking”*

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

- Researcher in Intelligence, Cybersecurity and Disruptive Technologies at Georgetown University
- Director of the Master's Program in Information Technology Management at Georgetown University
- Director of the Master in Technology Management at Georgetown University
- Director of the Master in Cybersecurity Risk Management at Georgetown University
- Director of the Master's Program 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, France
- Member of New Program Roundtable Committee, by 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

Completing this program will provide students with personal and professional growth, which will allow them to make the career leap they seek. In this way, the better their specialization, the more opportunities they will have to get a job adapted to their needs and abilities. For this reason, it is essential that business professionals do not neglect their studies and continue to take this type of program on a regular basis.



“

*Get the job you want thanks to the superior specialization
that this Postgraduate Certificate provides”*

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

The Postgraduate Certificate in Ethical Hacking at TECH Technological University is an intensive and highly valuable program aimed at improving students' professional skills in an area of extensive competition. 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.

If you want your CV to stand out in selection processes, do not hesitate and join TECH.

Achieve a career advancement in no time and bring all your knowledge of ethical hacking to your company.

Time of Change



Type of Change



Salary Increase

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



10

Benefits for Your Company

Taking this Postgraduate Certificate in Ethical Hacking at TECH Technological University will be a remarkable benefit for the personal and professional growth of our students, as they will gain comprehensive knowledge of a field that is increasingly relevant in the corporate world. Therefore, at the end of this program, students will be better able to apply computer security tools that are essential for businesses and to prevent potential computer attacks on their programs.



“

Be able to detect potential security flaws in your company's computer systems and work to improve them”

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 executive and opens new avenues for professional growth within the company.

03

Building agents of change

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

04

Increased international expansion possibilities

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



05

Project Development

Managers will be able to work on a real project or develop new projects in the R&D or Business Development area of their 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 Ethical Hacking guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Technological University.



“

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

This **Postgraduate Certificate in Ethical Hacking** contains the most complete and up to date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Certificate in Ethical Hacking**

Official N° of Hours: **150 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.



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