Postgraduate Certificate
Network Cybersecurity

tech technological university

Postgraduate Certificate
Network Cybersecurity

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

Website: **www.techtitute.com/pk/information-technology/postgraduate-certificate/network-cybersecurity**

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01
Introduction

As technology advances, our connectivity increases and so do the threats and attack techniques. The more new functionalities there are and the more we communicate with each other, the more our attack surface increases. In other words, the possibilities and ways for cybercriminals to achieve their goals are growing. For this reason, this course will discuss the importance of devising a multi-layer defence, also known as *"Defence in Depth"*, covering all aspects of a corporate network. With TECH's unique quality.

Acquire the skills of a network cybersecurity program in a few weeks with the most innovative Postgraduate Certificate in online teaching"

We are currently in the information age, in the era of connectivity where we are all connected in both domestic and corporate environments.

The range of threats is very wide, from a Trojan with a built-in Keylogger that, through an email, manages to infect the computer only to obtain sensitive data that can be very lucrative, to a Trojan that turns the computer, or any other device within the network, into a Bot that communicates with a *command* & *control* server to perpetrate a large-scale denial of service attack.

That is why security defence and monitoring systems must evolve. Because in a world where teleworking and Cloud services are becoming more and more common, a traditional perimeter *firewall* is not enough.

Also, with the huge number of devices that will be generating alerts, it is necessary to have a team that is continuously reviewing them, a Security Operations Center or SOC that is able to detect from the simplest to the most complex threats thanks to the correlation of all events, and even in many cases to create automated responses in order to reduce containment and mitigation times of attacks.

This **Postgraduate Certificate in Network Cybersecurity** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of case studies presented by cybersecurity experts.
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies in Advanced Practice Nursing
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Technology and connectivity are advancing at the same time as cyber threats: Get up to date on all the latest developments in this field of intervention"

A higher education process created to be affordable and flexible, with the most interesting methodology of online teaching"

Totally practice-focused, this Postgraduate Certificate will boost your skills to the level of a specialist"

Focussed to be entirely practical, this Postgraduate Certificate will boost your skills to the level of a specialist"
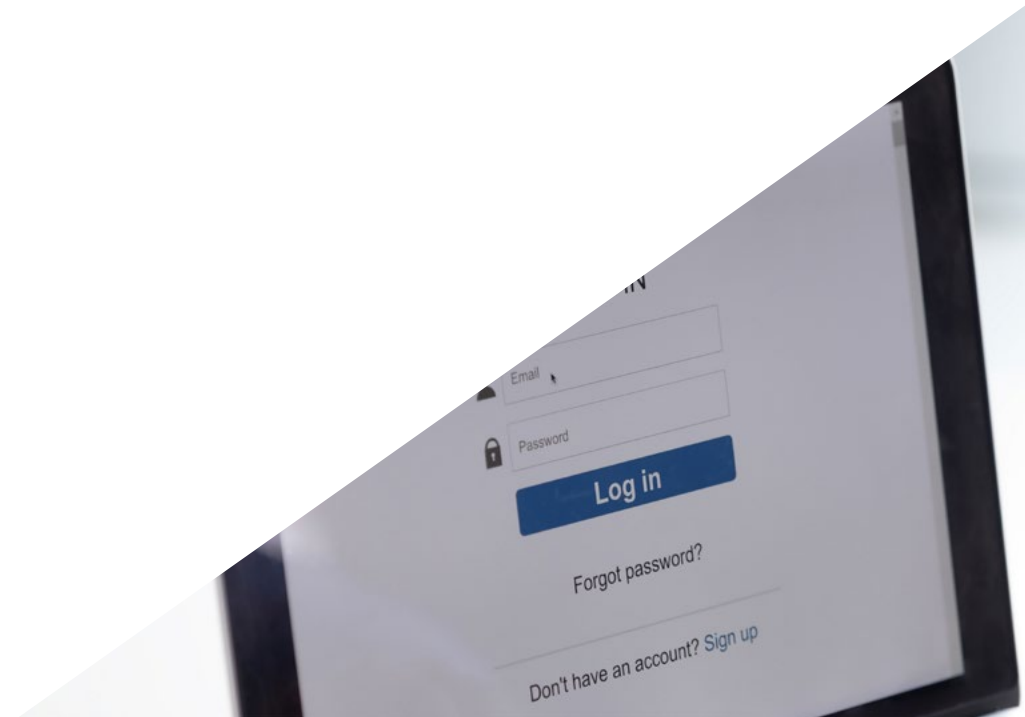
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive specialization programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02
Objectives

This Postgraduate Certificate boosts students' capacity to intervene in this field, quickly and easily. With realistic and highly relevant objectives, this course of study is designed to progressively lead students to the acquisition of the theoretical and practical knowledge necessary to intervene with excellence and to develop transversal competencies that will allow them to face complex situations by developing appropriate and precise responses.
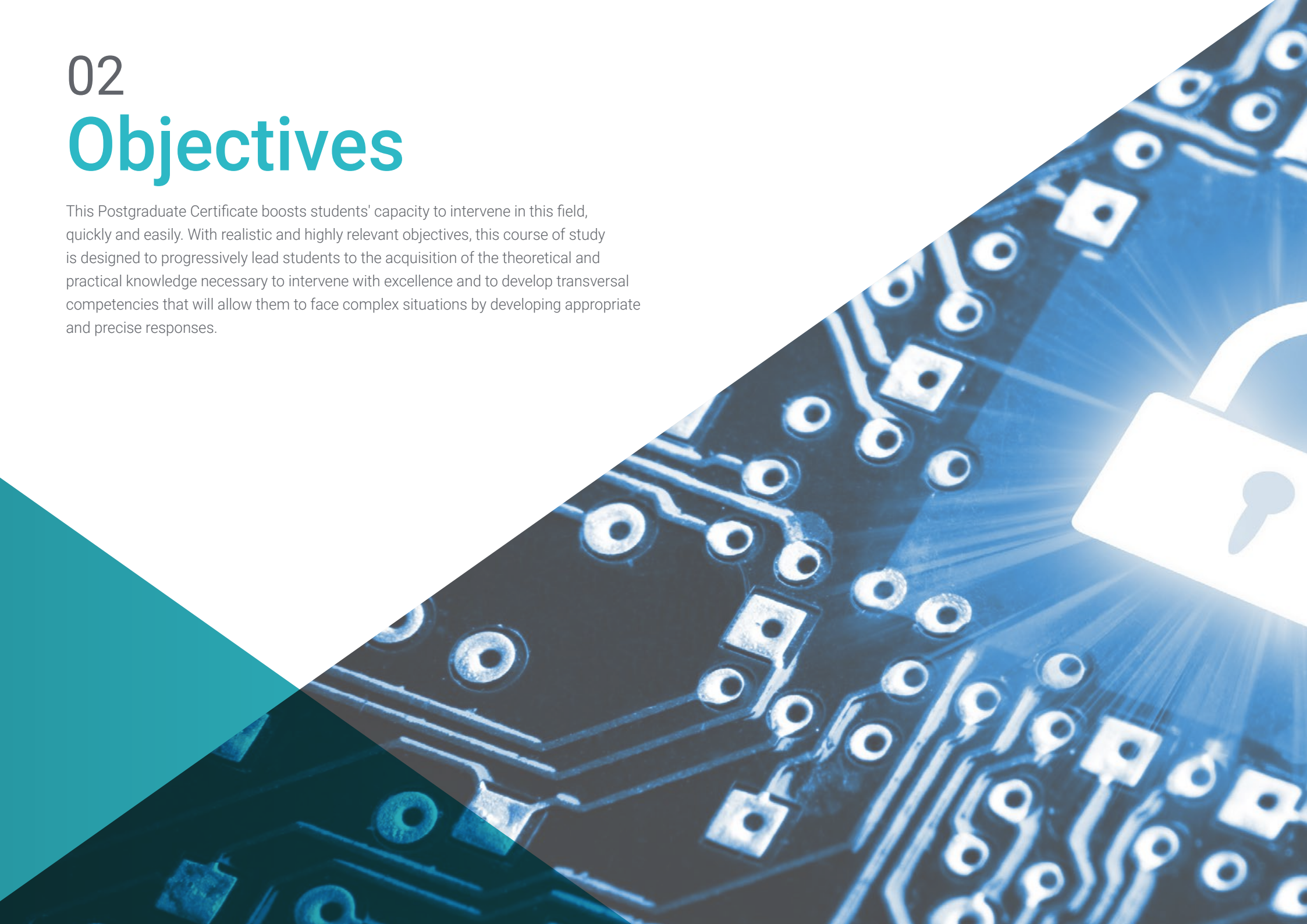
All the aspects that the program in cybersecurity has to master, with a high education objective that will put you on the front line of competitiveness"

General Objectives

- Analyze the general framework, the importance of multilayer defense and monitoring systems.
- Examine the most important threat detection and prevention systems.
- Develop firewall solutions on Host Linux and Cloud providers
- Evaluate new threat detection systems, as well as their evolution with respect to more traditional solutions.
- Generate complete intelligent solutions to automate incident behaviors

A perfect program that masterfully combines its intensive nature with flexibility"
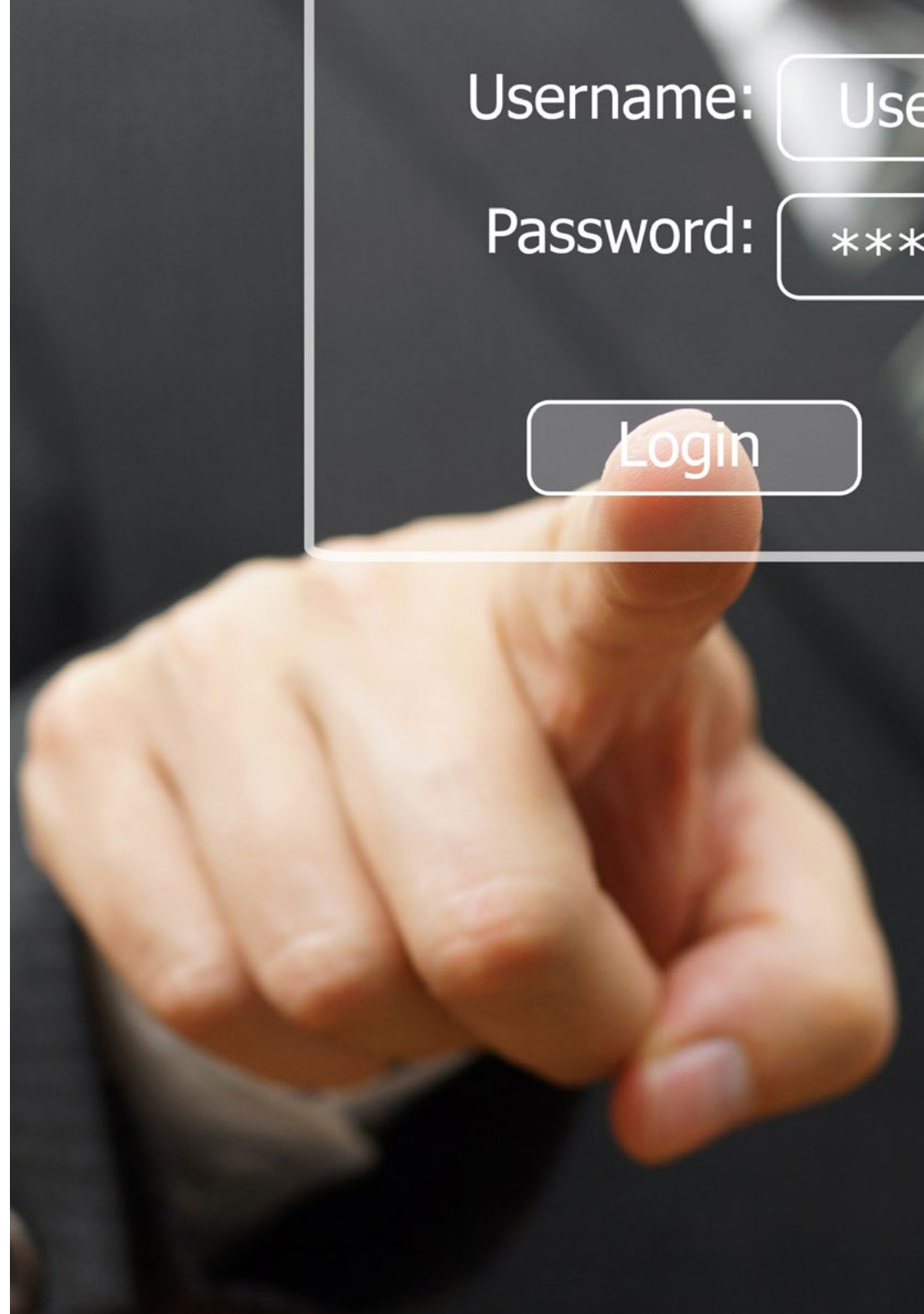
Specific Objectives

- Analyze current network architectures to identify the perimeter to protect
- Develop specific *firewall* and Linux configurations to mitigate the most common attacks.
- Compile the most commonly used solutions such as Snort and Suricata, as well as their configuration
- Examine the different additional layers provided by next-generation *firewalls* and networking capabilities in *Cloud* environments
- Determine the tools for network protection and demonstrate why they are fundamental to a multilayer defense.

03
Course Management

The teachers who teach this program have been selected for their exceptional competence in this field. They combine technical and practical experience with teaching experience, offering students first-class support in achieving their goals. Through them, the program offers the most direct and immediate vision of the real characteristics of the intervention in this field, achieving a contextual vision of maximum interest.

Expert cybersecurity teachers will accompany you in each phase of the study and will give you the most realistic view of this work"

Director Invitado Internacional

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, Georgetown University
- 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. Getafe National Reference Center for Informatics and Telecommunications. Madrid
- Certified E-Council instructor. Madrid
- Trainer in the following certifications: EXIN Ethical Hacking Foundation y EXIN Cyber & IT Security Foundation. Madrid
- Accredited expert trainer by the CAM of the following 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).
- Colaboradora externa CSO/SSA (Chief Security Officer/Senior Security Architect). University of the Balearic Islands
- Computer Engineer. Alcalá de Henares University. Madrid
- Master in DevOps: Docker and Kubernetes. Cas Training. Madrid
- Microsoft Azure Security Technologies. E-Council. Madrid

Professors

Mr. Peralta Alonso, Jon

- Attorney / DPO Altia Consultores S.A.
- Lecturer in Professional Master's Degree in Personal Data Protection, Cybersecurity and ICT Law. Public University of the Basque Country (UPV-EHU)
- Lawyer / Legal advisor. Arriaga Asociados Asesoramiento Jurídico y Económico, S.L.
- Legal Advisor / Intern. Professional office: Oscar Padura
- Law Degree. Public University of the Basque Country
- Professional Master's Degree in Data Protection Officer. Escuela innovadora EIS
- Professional Master's Degree in Law. Public University of the Basque Country
- Professional Master's Degree in Civil Litigation Practice. International University Isabel I of Castile

Mr. Jiménez Ramos, Álvaro

- Senior Security Analyst at The Workshop
- Cybersecurity Analyst L1 at Axians
- Cybersecurity Analyst L2 at Axians
- Cybersecurity analyst at SACYR S.A.
- Degree in Telematics Engineering from the Polytechnic University of Madrid
- Professional Master's Degree in Cybersecurity and Ethical Hacking by CICE
- Advanced Course in Cybersecurity by Deusto Training

04
Structure and Content

This Postgraduate Diploma is a complete analysis of each and every one of the fields of knowledge that the professional involved in cybersecurity should know in the field of Network Cybersecurity. To this end, it has been structured with a view to the efficient acquisition of summative knowledge, which will favor the absorption of learning and consolidate what has been studied, providing students with the capacity to intervene as quickly as possible. A high-intensity, high-quality course created to educate the best in the industry.
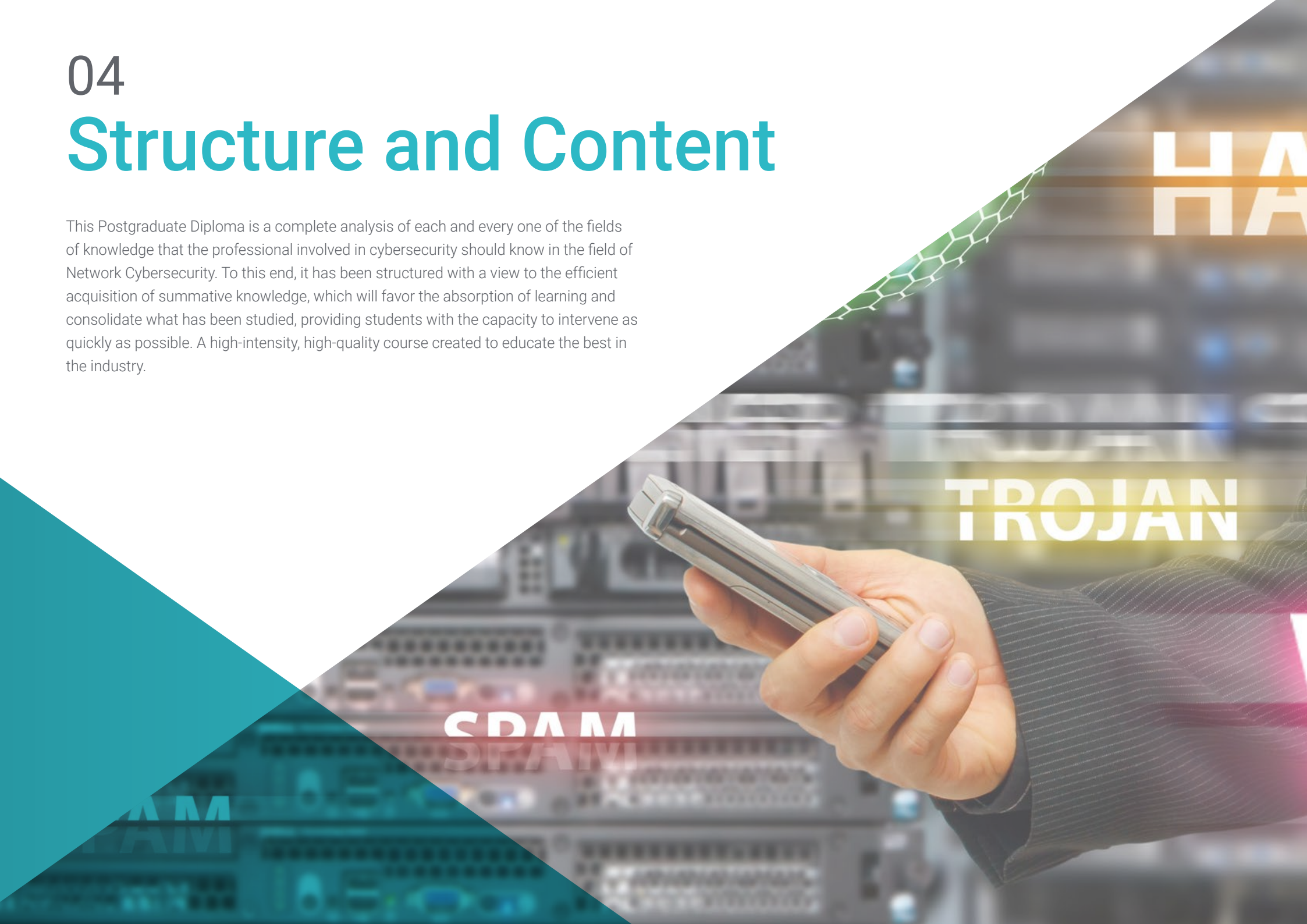
A dynamically developed Postgraduate Certificate through a study approach focused on efficiency"

Module 1. Network Security (Perimeter)

A high-impact education program that will help you understand the current threats, allowing you to act with agility and specialist resources"

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"

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"*

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. 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 professional reality is taken into account.

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

The case method has been the most widely used learning system among the world's leading Information Technology 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 that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and 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.

In 2019, we obtained the best learning results of all online universities in the world.

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 university is the only one in the world authorized to employ 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. This methodology has 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, and financial markets and 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.

Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

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.

20%

25%

4%

3%

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 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.

06

Certificate

The Postgraduate Certificate in Network Cybersecurity 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 Network Cybersecurity** 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 though the **Postgraduate Certificate** , and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Network Cybersecurity**

Official Nº of Hours: **150 h.**

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Awards the following
CERTIFICATE
to
Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE
in

Network Cybersecurity

This is a qualification awarded by this University, equivalent to 150 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

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

*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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