

# Postgraduate Certificate Cybersecurity and Modern Threat Analysis with ChatGPT



## Postgraduate Certificate Cybersecurity and Modern Threat Analysis with ChatGPT

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

Website: [www.techtitute.com/us/artificial-intelligence/postgraduate-certificate/cybersecurity-modern-threat-analysis-chatgpt](https://www.techtitute.com/us/artificial-intelligence/postgraduate-certificate/cybersecurity-modern-threat-analysis-chatgpt)

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01

# Introduction to the Program

Cybersecurity is facing increasingly complex challenges due to the rapid evolution of cyber threats. With attacks becoming increasingly sophisticated and difficult to detect, traditional solutions are being outpaced. In this context, the use of Artificial Intelligence, especially tools such as ChatGPT, is emerging as an innovative way to improve detection and response to security incidents. Faced with this reality, professionals need to handle the latest machine learning techniques to provide faster and more effective solutions to protect digital infrastructures. With this idea in mind, TECH presents an innovative 100% online university program focused on Cybersecurity and Modern Threat Analysis with ChatGPT.





```
// Begin Actor overrides
virtual void PostInitializeComponents() override;
virtual void Tick(float DeltaSeconds) override;
virtual void ReceiveHit(class UPawn* Other, class UDamageComponent* DamageComp) override;
virtual void FellOutOfWorld(const class UDamageComponent* DamageComp) override;
// End Actor overrides

// Begin Pawn overrides
virtual void SetupPlayerInputComponent(class UInputComponent* InputComp) override;
virtual float TakeDamage(float Damage, struct FDamageEvent* Event, class AActor* Instigator, class AActor* DamageCauser) override;
virtual void TurnOff() override;
// End Pawn overrides

/** Identifies if pawn is in its dying state.
 * UPROPERTY(VisibleAnywhere, BlueprintReadWrite)
 * uint32 bIsDying:1;
 */

/** replicating death on client
 * UFUNCTION()
 * void OnRep_Dying() const;
 */

/** Returns true if the pawn is in its dying state.
 * virtual bool IsDying() const;
 */
```

“

Thanks to this fully online Postgraduate Certificate, you will master the use of Artificial Intelligence to optimize cyber threat analysis and use ChatGPT to analyze large volumes of data”

A new study by the United Nations World Organization reveals that 68% of organizations experienced a significant increase in cyber-attacks in recent months. It also reflects that 37% of these companies reported that their defense capabilities were insufficient. In this environment of increasing threats, Artificial Intelligence offers an innovative approach to analyze large volumes of security data and anticipate threats. Therefore, specialists need to skillfully handle tools such as ChatGPT in order to improve vulnerability detection and incident response more efficiently.

In this scenario, TECH has created a pioneering Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT. Conceived by renowned specialists in this field, the curriculum will delve into subjects ranging from the principles of security applied to intelligent systems or the basics of identifying vulnerabilities in information systems to the most effective machine learning techniques for the detection of malicious code. In this way, students will be able to develop and implement advanced cybersecurity solutions using ChatGPT and other Artificial Intelligence technologies, optimizing detection and response to threats in real time.

To consolidate such didactic content, doctors can rely on a disruptive methodology: Relearning. This TECH-driven system promotes the gradual assimilation of the most complex concepts through repetition, while minimizing the investment of time and effort in having to memorize them. Also, the program is developed 100% online, another significant advantage that provides autonomy to the graduates, allowing them to organize their learning pace depending on their other obligations.

This **Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- ♦ The development of case studies presented by experts in risk analysis, threat management and advanced AI applications in the professional environment
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



*You will implement ChatGPT as an advanced tool to assess risks and develop cutting-edge cybersecurity strategies”*

“

*You will master advanced techniques to identify phishing and social engineering attacks, helping to protect sensitive data and enterprise systems”*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 education 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 during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

*You will improve digital protection processes through the application of Artificial Intelligence and personalized strategies.*

*You will enjoy a learning methodology based on repetition, with a natural and progressive teaching throughout the entire syllabus.*





02

# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.





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*Study at the largest online university in the world and ensure your professional success. The future begins at TECH”*

### The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

### The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

### The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



### The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

### A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

#### The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

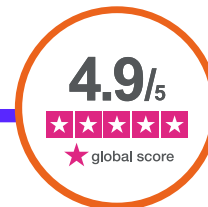
#### Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



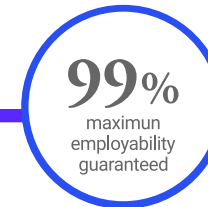
#### Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



#### The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



# 03

## Syllabus

The curriculum will delve into issues ranging from the use of ChatGPT for cyber risk analysis or the principles of vulnerability detection in information systems to the implementation of advanced cybersecurity policies. Thanks to this, graduates will develop key skills to integrate solutions based on Artificial Intelligence in cybersecurity strategies, improving the ability of organizations to anticipate, detect and mitigate threats. In addition, they will be trained to lead security projects in complex digital environments, implement effective protection policies and ensure the security of technological infrastructures against sophisticated cyber-attacks.





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*You will create automated defense systems  
that improve digital incident response and  
vulnerability management”*

## Module 1. Cybersecurity and Modern Threat Analysis with ChatGPT

- 1.1. Introduction to Cybersecurity: Current Threats and the Role of Artificial Intelligence
  - 1.1.1. Definition and Basic Concepts of Cybersecurity
  - 1.1.2. Types of Modern Cybersecurity Threats
  - 1.1.3. Role of Artificial Intelligence in the Evolution of Cybersecurity
- 1.2. Confidentiality, Integrity and Availability (CIA) in the Age of Artificial Intelligence
  - 1.2.1. Fundamentals of the CIA Model in Cybersecurity
  - 1.2.2. Security Principles Applied in the AI Context
  - 1.2.3. CIA Challenges and Considerations in Artificial Intelligence-Driven Systems
- 1.3. Use of ChatGPT for Risk Analysis and Threat Scenarios
  - 1.3.1. Fundamentals of Risk Analysis in Cybersecurity
  - 1.3.2. ChatGPT's Ability to Identify and Evaluate Threat Scenarios
  - 1.3.3. Benefits and Limitations of Risk Analysis with Artificial Intelligence
- 1.4. ChatGPT in the Detection of Critical Vulnerabilities
  - 1.4.1. Principles of Vulnerability Detection in Information Systems
  - 1.4.2. ChatGPT Functionalities to Support Vulnerability Detection
  - 1.4.3. Ethical and Security Considerations When Using Artificial Intelligence in Fault Detection
- 1.5. AI-Assisted Analysis of Malware and Ransomware
  - 1.5.1. Basic Principles of Malware and Ransomware Analysis
  - 1.5.2. Artificial Intelligence Techniques Applied in the Identification of Malicious Code
  - 1.5.3. Technical and Operational Challenges in AI-Assisted Malware Analysis
- 1.6. Identification of Common Attacks with Artificial Intelligence: Phishing, Social Engineering, and Exploitation
  - 1.6.1. Classification of Attacks: Phishing, Social Engineering, and Exploitation
  - 1.6.2. AI Techniques for Identification and Analysis of Common Attacks
  - 1.6.3. Difficulties and Limitations of Artificial Intelligence Models for Attack Detection







- 1.7. ChatGPT in Cyberthreat Training and Simulation
  - 1.7.1. Fundamentals of Threat Simulation for Cybersecurity Training
  - 1.7.2. ChatGPT Capabilities for Designing Simulation Scenarios
  - 1.7.3. Benefits of Threat Simulation as a Training Tool
- 1.8. Cyber Security Policies with Artificial Intelligence Recommendations
  - 1.8.1. Principles for Cyber Security Policy Formulation
  - 1.8.2. Role of Artificial Intelligence in Generating Security Recommendations
  - 1.8.3. Key Components in Artificial Intelligence Oriented Security Policies
- 1.9. Security in IoT Devices and the Role of Artificial Intelligence
  - 1.9.1. Fundamentals of Internet of Things (IoT) Security
  - 1.9.2. Artificial Intelligence Capabilities to Mitigate Vulnerabilities in IoT Devices
  - 1.9.3. Specific Artificial Intelligence Challenges and Considerations for IoT Security
- 1.10. Threat Assessment and Responses Assisted by Artificial Intelligence Tools
  - 1.10.1. Cybersecurity Threat Assessment Principles
  - 1.10.2. Characteristics of Automated Artificial Intelligence Responses
  - 1.10.3. Critical Factors in the Effectiveness of Cyber Responses with Artificial Intelligence



*You will apply regulations and ethical principles in Cybersecurity, ensuring that AI-based solutions comply with current data protection laws"*

04

# Teaching Objectives

The Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT aims to train graduates in the use of advanced Artificial Intelligence tools, especially ChatGPT, to identify, analyze and mitigate cyber threats. In this way, students will develop advanced skills to automate intrusion detection processes, manage security incidents and improve defense strategies against emerging attacks.







NODE

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*You will develop skills in analyzing large volumes of security data, which will allow you to identify anomalous patterns and hidden threats”*



## General Objectives

- Understand the fundamentals and principles of cybersecurity, including the CIA model, and its application in modern digital environments
- Analyze and assess risks in information systems to identify critical vulnerabilities and establish effective mitigation strategies
- Design and implement cybersecurity policies tailored to the needs of advanced technology infrastructures and enterprise environments
- Manage security in IoT devices by identifying specific risks and implementing effective protective measures.
- Delve into techniques for detecting and analyzing malware and ransomware, optimizing the ability to respond to these types of threats
- Identify and counter common attacks, such as phishing and social engineering, through hands-on approaches and AI-based strategies
- Integrate theoretical and practical learning to address real-world scenarios in the field of Cybersecurity
- Acquire an ethical and responsible approach to Cybersecurity management, ensuring regulatory compliance and sustainability in the use of advanced technological tools





## Specific Objectives

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- ♦ Understand the fundamental concepts of Cybersecurity, including modern threats and the CIA model
- ♦ Use ChatGPT for risk analysis, vulnerability detection and simulation of threat scenarios
- ♦ Develop skills to design effective cybersecurity policies and protect IoT devices using Artificial Intelligence
- ♦ Implement advanced threat management strategies using generative Artificial Intelligence to anticipate potential attacks
- ♦ Assess the impact of modern threats on critical infrastructures using AI-assisted simulation techniques
- ♦ Design customized solutions for the protection of corporate networks, based on advanced Artificial Intelligence tools



*The specialized readings will allow you to further extend the rigorous information provided in this academic option"*



05

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.





“““

*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”



## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.





## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"*

### The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

### The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*





As such, the best educational materials, thoroughly prepared, will be available in this program:



#### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



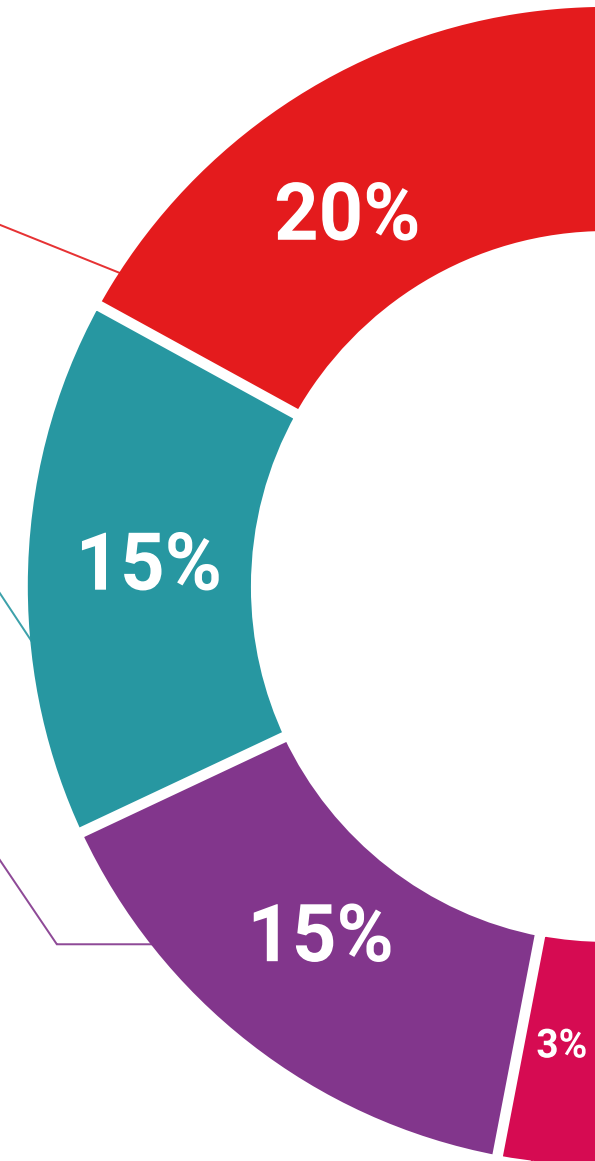
#### Interactive Summaries

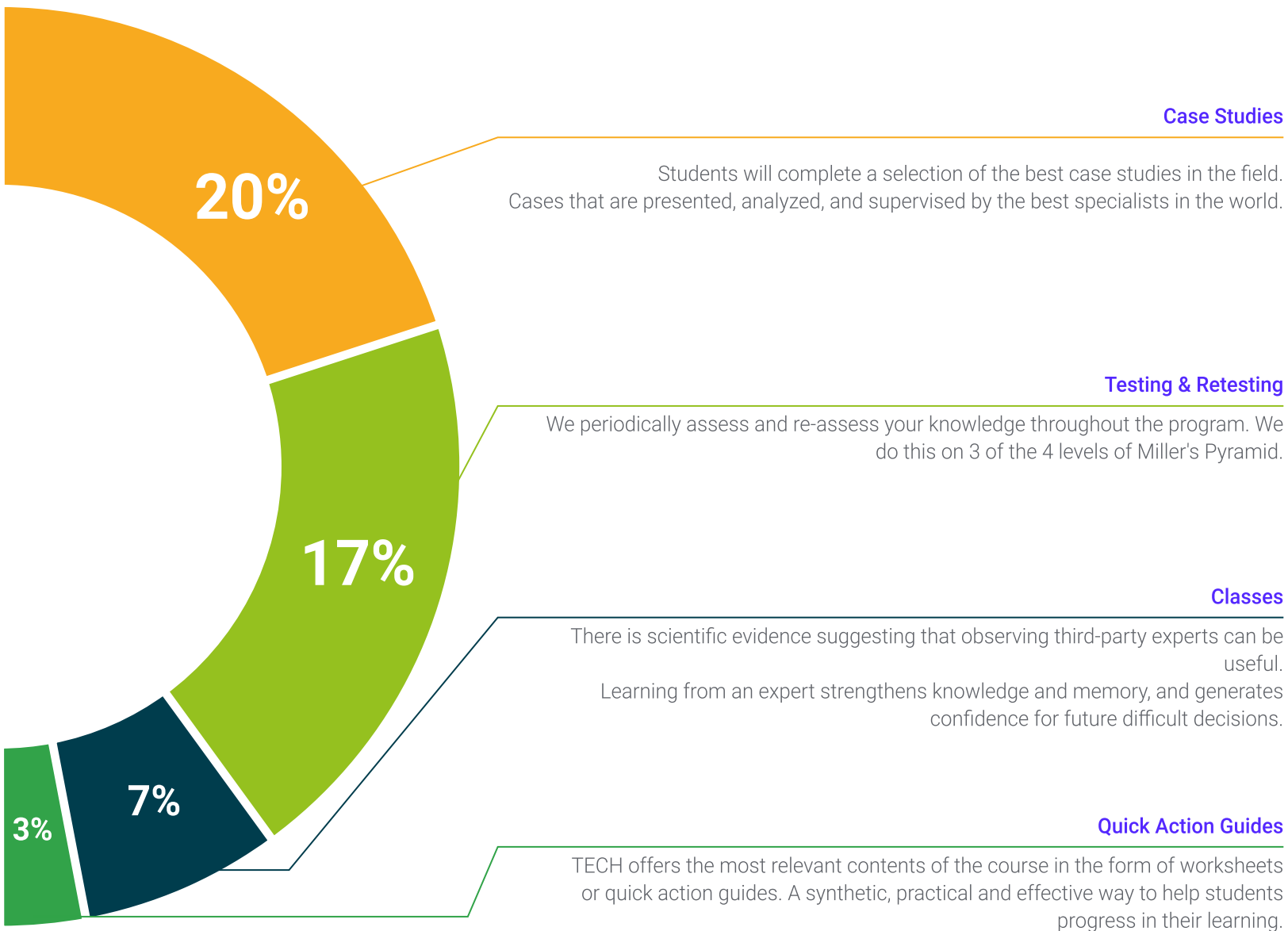
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





06

# Teaching Staff

TECH's priority is based on making available to anyone the most complete and updated university qualifications in the academic landscape, which is why it carefully chooses its teaching staff. For the delivery of this Postgraduate Certificate, it has managed to bring together leading specialists in the field of Cybersecurity and Modern Threat Analysis with ChatGPT. Thanks to this, they have created a wide range of teaching materials that stand out for their quality and adaptation to the needs of the labor market.





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*You will have access to a curriculum designed by renowned experts in Cybersecurity and Modern Threat Analysis with ChatGPT”*

## Management



### Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometheus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shepherds GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- Doctorate in Psychology from the University of Castilla La Mancha
- Doctorate in Economics, Business and Finance from the Camilo José Cela University
- Doctorate in Psychology from University of Castilla La Mancha
- Master's Degree in Executive MBA from the Isabel I University
- Master's Degree in Sales and Marketing Management from the Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- Member of: SMILE Research Group



## Professors

### Mr. Del Rey Sánchez, Alejandro

- ♦ In Charge of Implementing Programs to Improve Tactical Emergency Care
- ♦ Degree in Industrial Organization Engineering
- ♦ Certification in Big Data and Business Analytics
- ♦ Certification in Microsoft Excel Advanced, VBA, KPI and DAX
- ♦ Certification in CIS Telecommunication and Information Systems

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*A unique, crucial and decisive learning experience to boost your professional development"*



07

# Certificate

This Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT guarantees, in addition to the most rigorous and up-to-date program, access to an Postgraduate Certificate diploma issued by TECH Global University.



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

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT** 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.

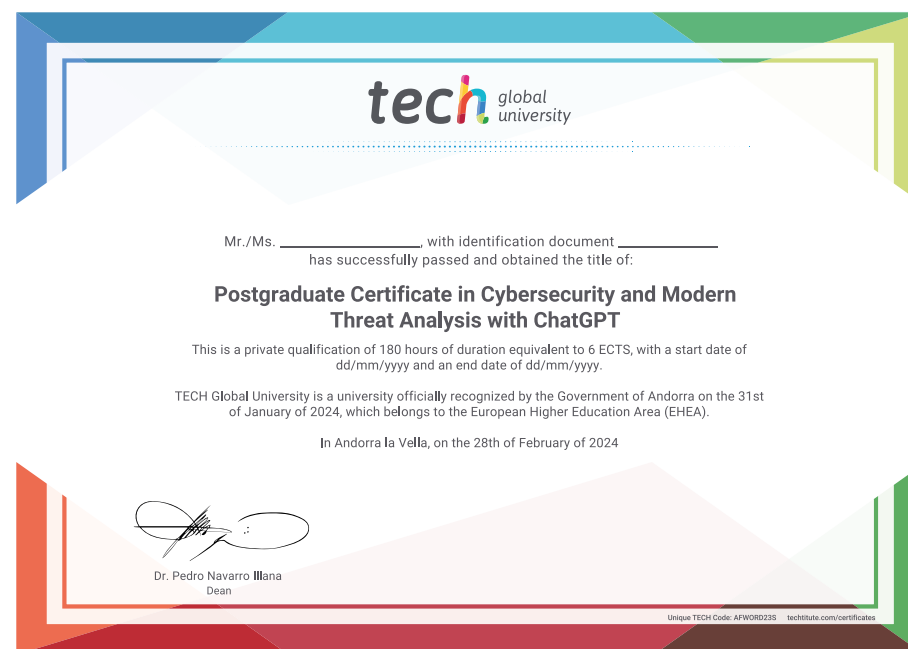
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Cybersecurity and Modern Threat Analysis with ChatGPT**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**







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