

# Postgraduate Certificate Multiplayer Networks and Systems





## Postgraduate Certificate Multiplayer Networks and Systems

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

Website: [www.techtitute.com/us/videogames/postgraduate-certificate/multiplayer-networks-systems](http://www.techtitute.com/us/videogames/postgraduate-certificate/multiplayer-networks-systems)

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# 01

# Introduction

Most of today's most successful video games are multiplayer and are therefore played online. This situation is quite recent, so game design companies have had to adapt very quickly to avoid being left behind. Therefore, networks and multiplayer systems are one of the most complex and highly valued aspects by companies in the sector, and they need specialists to help them develop their next projects. For this reason, this program is essential for those who want to become experts in the field and gain access to important positions in a large company within the industry.





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*The world's most famous video games are online and multiplayer: specialize in this area and open up new career paths”*

If we take a look at some of the most famous games in the world of video games today, we would highlight one quality: they are multiplayer and are therefore played on an online network. The popularity of the Internet and its normalization in the field of video games has produced an enormous transformation in their consumption and production. The industry is not like it was 10 years ago.

For this reason, companies in the sector are looking to improve and adapt to these new circumstances, and to do so they need specialized personnel. But there is not a large number of professionals focused on this area, as it is a relatively new field.

Therefore, those who gain knowledge in the field will be in a position to work in the video game industry. This Postgraduate Certificate in Multiplayer Networks and Systems offers students the best content and skills to become experts in the field, so that they can obtain great career opportunities and access to large companies in the sector.

This **Postgraduate Certificate in Multiplayer Networks and Systems** contains the most complete and up-to-date program on the market. Its most notable features are:

- ◆ Practical cases presented by experts in multiplayer systems and networks
- ◆ 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
- ◆ Special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Access to content from any fixed or portable device with an Internet connection.



*Multiplayer networks and systems are the present and the future of the video game industry: specialize and become a highly sought-after professional"*

“

*The industry needs experts in multiplayer networks and systems. Complete this course and gain access to the best professional opportunities”*

The teaching staff of this program includes professionals from the industry, who contribute the experience of their work to this program, in addition to recognized specialists from reference 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 learning 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. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*If you want to work in large video game companies, this Postgraduate Certificate is what you are looking for.*

*You will be a highly valued specialist in your company when you finish this program.*



# 02 Objectives

The main objective of this Postgraduate Certificate in Multiplayer Networks and Systems is to offer its students the best knowledge in the field, so that they can become experts and therefore gain access to the best companies in the industry. This program, therefore, has been created so that students have the best tools and skills to face their professional challenges, and their companies are satisfied with their performance.





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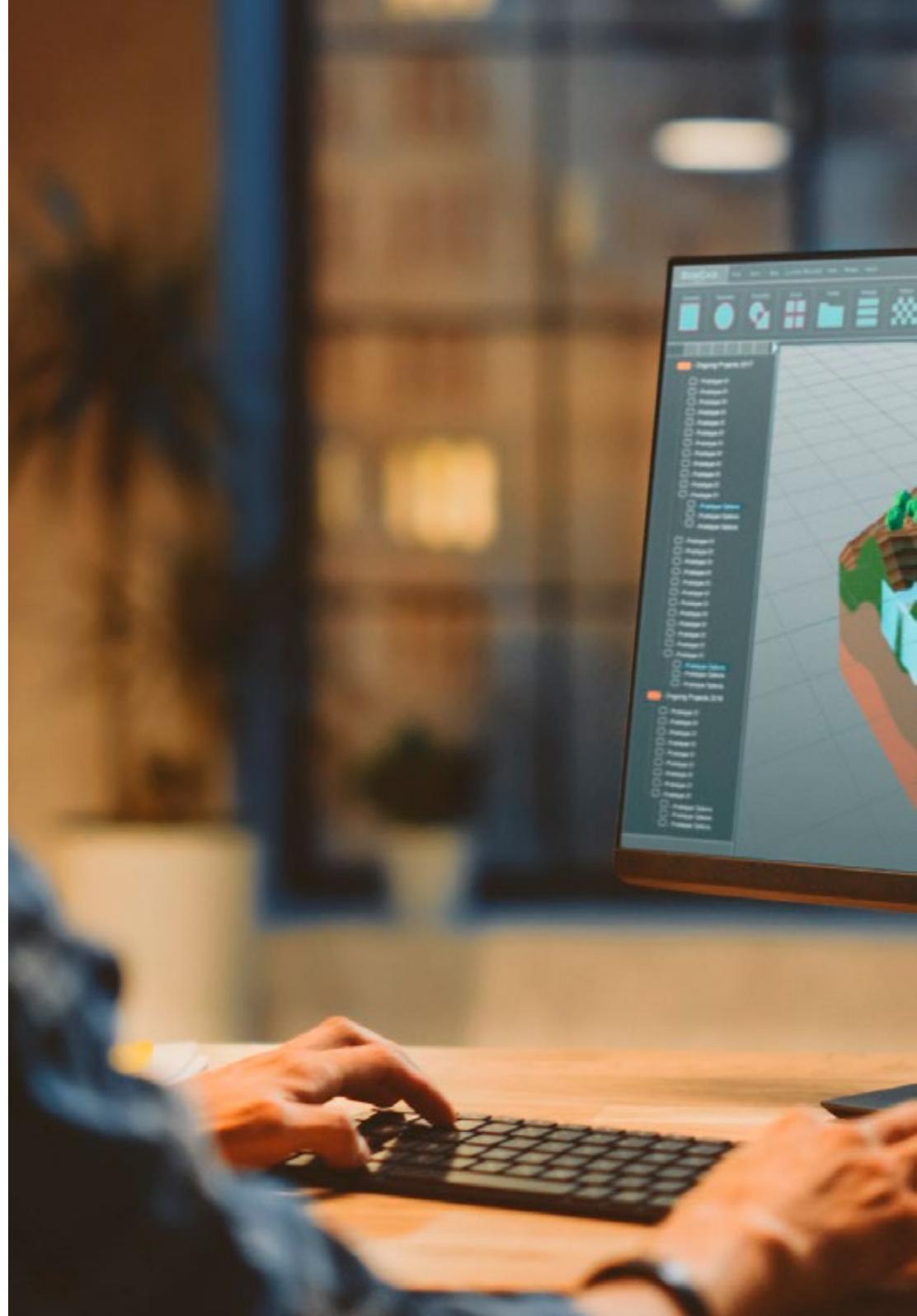
*Achieve all your goals with this  
Postgraduate Certificate”*

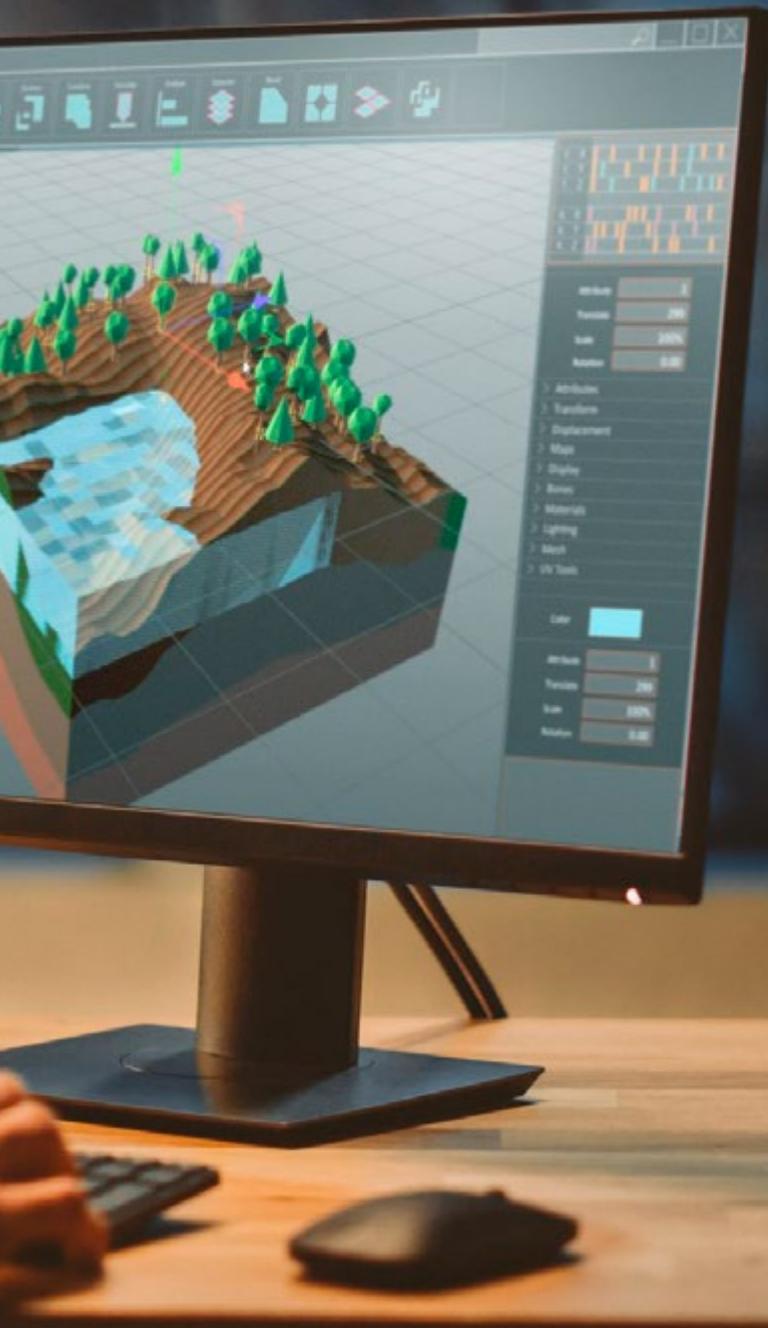


## General Objectives

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- ◆ Apply knowledge of software engineering and programming specific to video games
- ◆ Understand the role of programming in video game development
- ◆ Know the different existing consoles and platforms
- ◆ Develop web and multiplayer video games





## Specific Objectives

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- ◆ Describe the transmission control protocol/internet protocol (TCP/IP) architecture and the basic operation of wireless networks
- ◆ Analyze video game security
- ◆ Acquire the ability to develop online games for multiple players

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*Multiplayer networks and systems are very important elements in the video game industry. Don't get left behind and specialize now”*

# 03

## Structure and Content

This Postgraduate Certificate in Multiplayer Networks and Systems has been designed by the best experts in the field, who have made sure that students learn everything they need to become useful members of any large video game company today. Therefore, this program is structured in one module, composed of 10 topics, through which students will learn a wide variety of knowledge about networks and security in this type of games.





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*Content to match your talent”*

## Module 1. Multiplayer Networks and Systems

- 1.1. History and Evolution of Multiplayer Video Games
  - 1.1.1. The 1970s: First Multiplayer Games
  - 1.1.2. The 90s: Duke Nuke, Doom and Quake
  - 1.1.3. Rise of Multiplayer Video Games
  - 1.1.4. Local and Online Multiplayer
  - 1.1.5. Party Games
- 1.2. Multiplayer Business Games
  - 1.2.1. Origin and Function of Emerging Business Models
  - 1.2.2. Online Sales Services
  - 1.2.3. Free to Play
  - 1.2.4. Micropayments
  - 1.2.5. Advertising
  - 1.2.6. Monthly Payment Subscription
  - 1.2.7. Pay to Play
  - 1.2.8. Try before You Buy
- 1.3. Local and Network Games
  - 1.3.1. Local Games: Beginnings
  - 1.3.2. Party Games: Nintendo and Family Union
  - 1.3.3. Networks Games: Beginnings
  - 1.3.4. Network Games Evolution
- 1.4. OSI Model: Layers I
  - 1.4.1. OSI Model: Introduction
  - 1.4.2. Physical Layer
  - 1.4.3. Data Link Layer
  - 1.4.4. Network Layer
- 1.5. OSI Model: Layers II
  - 1.5.1. Transport Layer
  - 1.5.2. Session Layer
  - 1.5.3. Presentation Layer
  - 1.5.4. Application Layer





- 1.6. Computer Networks and the Internet
  - 1.6.1. What Are Computer Networks?
  - 1.6.2. Software
  - 1.6.3. Hardware
  - 1.6.4. Servers
  - 1.6.5. Network Storage
  - 1.6.6. Network Protocols
- 1.7. Mobile and Wireless Networks
  - 1.7.1. Mobile Networks
  - 1.7.2. Wireless Networks
  - 1.7.3. How Mobile Networks Work
  - 1.7.4. Digital Technology
- 1.8. Confidence
  - 1.8.1. Personal Security
  - 1.8.2. Video Game Hacks and Cheats
  - 1.8.3. Anti-Cheating Safety
  - 1.8.4. Anti-Cheating Security Systems Analysis
- 1.9. Multiplayer Systems: Servers
  - 1.9.1. Server Hosting
  - 1.9.2. Massively Multiplayer Online (MMO) Video Games
  - 1.9.3. Dedicated Video Game Servers
  - 1.9.4. Local Area Network (LAN) Parties
- 1.10. Multiplayer Video Game Design and Programming
  - 1.10.1. Multiplayer Video Game Design Basics in Unreal
  - 1.10.2. Multiplayer Video Game Design Basics in Unity
  - 1.10.3. How to Make a Multiplayer Game Fun
  - 1.10.4. Beyond a Controller: Innovation in Multiplayer Controls

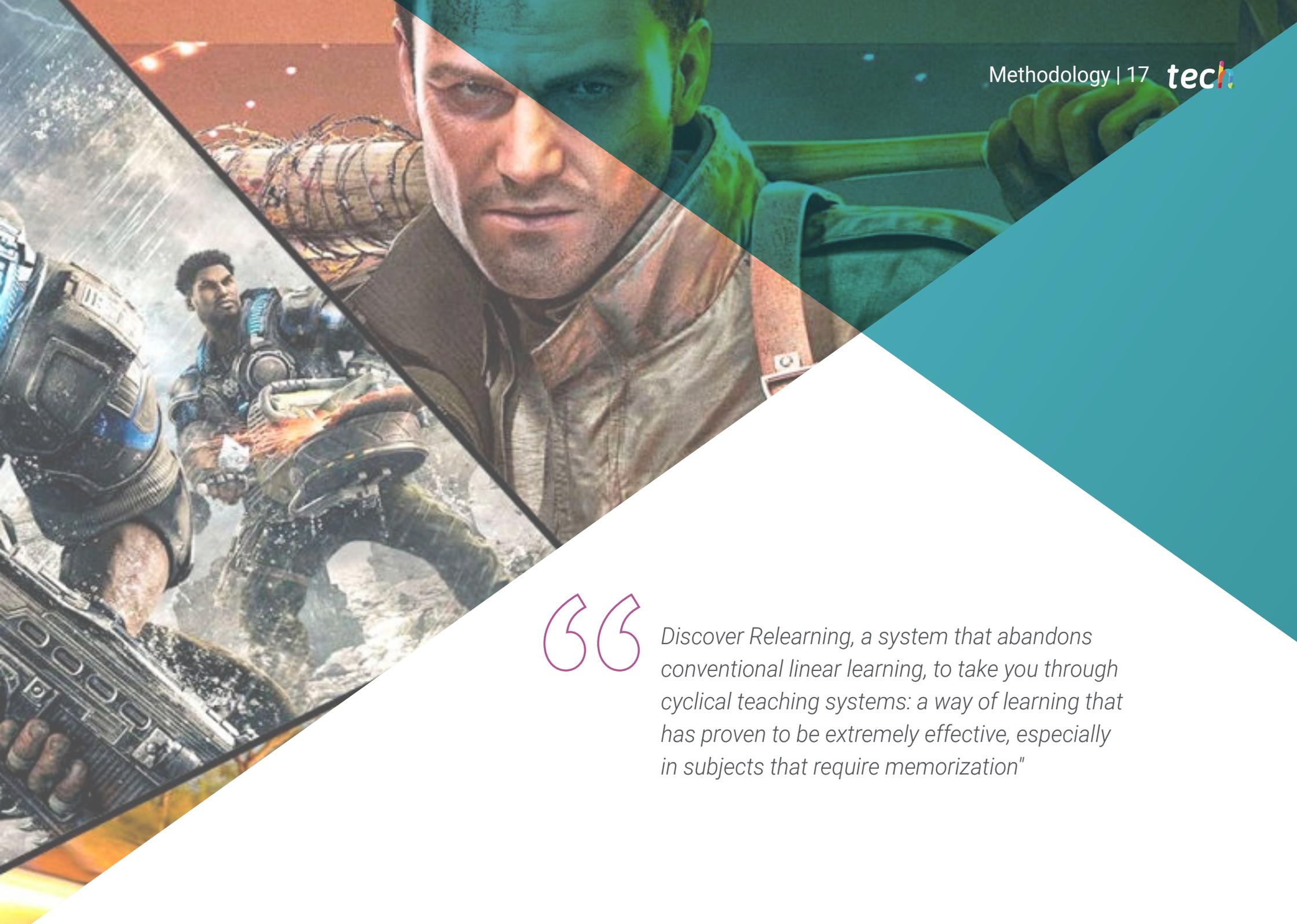
# 04

# 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.





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*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.

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*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.*



### 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.

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

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

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 that you are presented with in the case method, an action-oriented learning method. Over the course of 4 years, you will be presented with multiple practical case studies. You will have to combine all your knowledge, and research, argue, and defend your ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 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.



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.

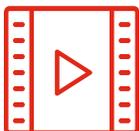
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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.



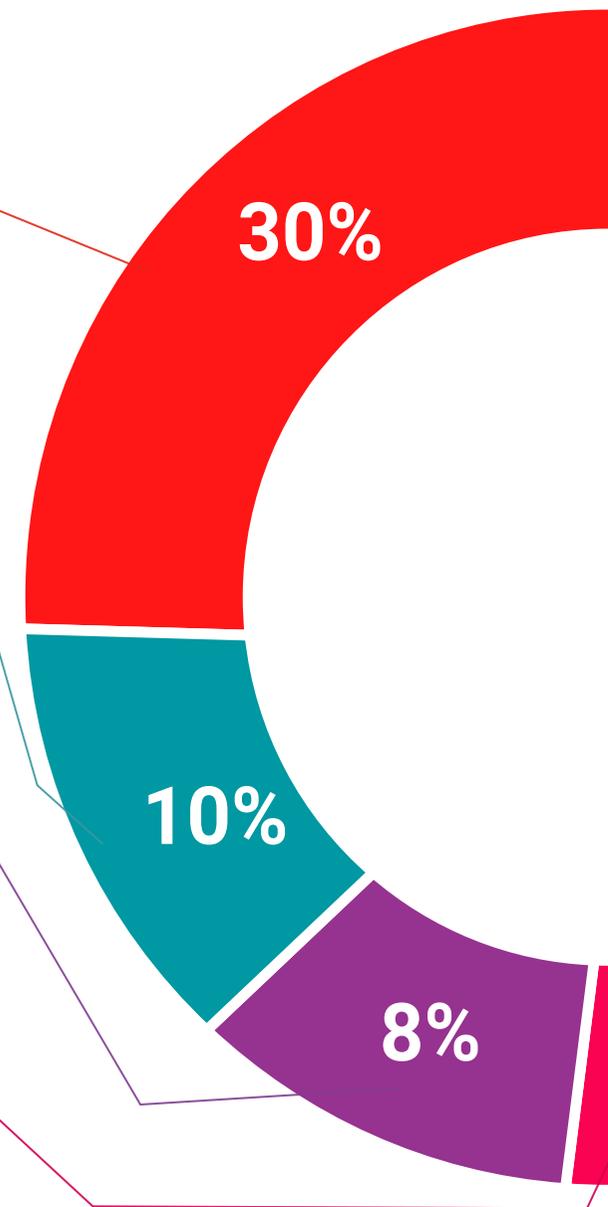
### Practising Skills and Abilities

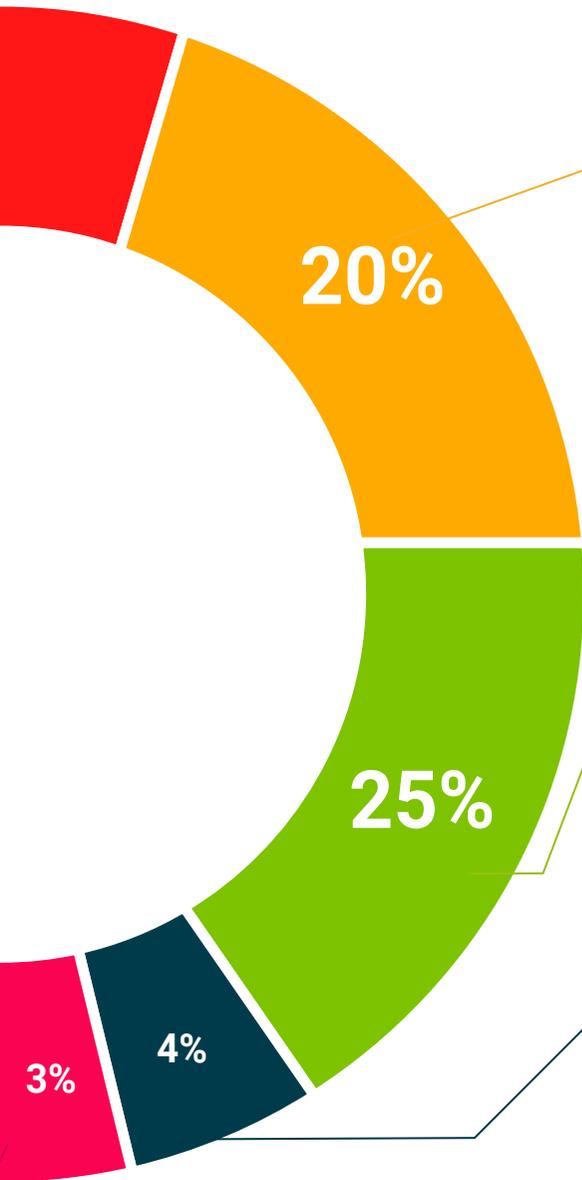
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### 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 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.



# 05 Certificate

The Postgraduate Certificate in Multiplayer Networks and Systems guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Multiplayer Networks and Systems** contains the most complete and up-to-date program on the market.

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

The diploma 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 Multiplayer Networks and Systems**

Official N° of Hours: **150 h.**



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

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
classroom



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