

# Postgraduate Certificate 3D Industry





## Postgraduate Certificate 3D Industry

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

Website: [www.techtitute.com/us/design/postgraduate-certificate/3d-industry](http://www.techtitute.com/us/design/postgraduate-certificate/3d-industry)

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# 01

# Introduction

Dedicating oneself to 3D design applied to the video game sector is one of the many job opportunities available to the creative. This is a booming sector in which the diversity and flexibility of the numerous platforms that exist today offer a wide range of opportunities. Based on this, having a high degree of specialization in this field becomes a distinctive asset that can undoubtedly help the professional to reach prestigious positions in the industry. For this reason, TECH has considered necessary the development of this very complete program with which the graduate will be able to know in detail the ins and outs of the *gaming* sector through a diverse agenda designed by experts. This is a 100% online program thanks to which you will be able to perfect your skills in the use of 3D video game design software in only 150 hours of comprehensive education.





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*A unique opportunity to expand your professional opportunities as a designer in a booming sector such as video games"*

The development of increasingly sophisticated and complex animation techniques has influenced the growth of industries such as video games, allowing the implementation of 3D elements with truly realistic finishes in their projects. In these cases, the role of the designer is fundamental and the demand for specialized professionals in this sector is growing from one day to the next. However, it is a field that requires a broad and exhaustive knowledge, based, in addition, on the mastery of software such as Maya, 3Ds Max and Blender.

In order to adapt their profile to the specifications of the labor market, graduates can count on this very complete Postgraduate Certificate in 3D Industry. TECH and its team of experts have worked in the conformation of a multidisciplinary and innovative program that includes 150 hours of the best theoretical, practical and additional material, with which you can delve into aspects such as the management of pipelines for the generation of assets for video games, the different artistic styles that are currently having the best reception, the integration of the different elements in the project and the keys to master the main creative and rendering programs. In addition, it will delve into the key factors of 3D applicable to different industries.

It is, therefore, a unique and unparalleled academic opportunity to get up to date with the latest developments in the sector, as well as to perfect your skills in the design of gaming projects in just 6 weeks. For this, you will have the flexibility offered by TECH through the convenient 100% online format of this program, which will allow you to take it from wherever you want and with a schedule fully adapted to your availability, with no on-site classes or connection limits.

This **Postgraduate Certificate in the 3D Industries** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Video Games and Video Technologies
- ◆ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where the self-assessment process can be carried out to improve learning
- ◆ Special emphasis on 3D modeling and animation in virtual environments
- ◆ 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



*A 100% online Postgraduate Certificate that will provide you with all the information you need to become a true 3D industry expert in less than 6 weeks"*



*The perfect academic option to implement to your practice the mastery of the main 3D video game design software: Maya, 3Ds Max and Blender"*

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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will work on the creation of pipelines for the generation of 3D assets for video games through the best theoretical, practical and additional content.*

*To take this program you only need time and an Internet connection: from wherever you want and optimized for any device.*



# 02 Objectives

TECH has developed this program with the objective of providing the creative with the latest and most complete information that will allow them to generate specialized knowledge about the 3D industry applied to video game design. In addition, based on the firm commitment that this university has with the professional growth of all its graduates, it intends, with the launching of this Postgraduate Certificate, to exceed even its most demanding and ambitious expectations based on the provision of the best academic material of the moment.







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*A program designed with the objective of exceeding your most demanding and ambitious academic expectations, do you accept?”*



## General Objectives

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- ◆ Provide specialized knowledge about the 3D industry
- ◆ Use 3D Max software to generate different contents
- ◆ Propose a series of best practices and organized and professional work



*If among your objectives is to know in detail the main artistic styles in 3D design for animation, with this program you will achieve it with total guarantee"*





## Specific Objectives

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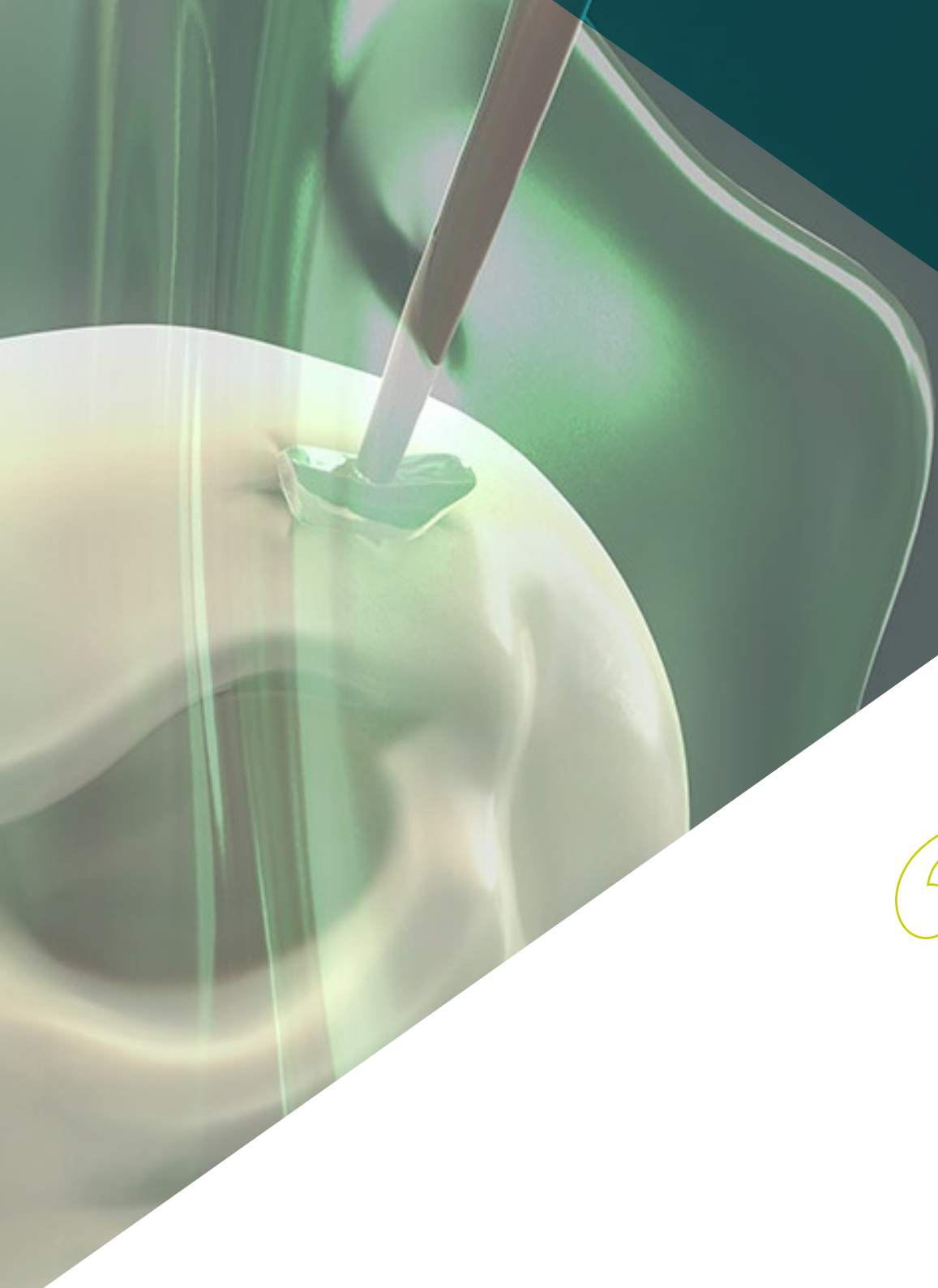
- ◆ Examine the current state of the 3D industry, as well as its evolution over the last few years
- ◆ Generate specialized knowledge about the software commonly used within the industry to generate professional 3D content
- ◆ Determine the steps to develop this type of content through a pipeline adapted to the video game industry
- ◆ Analyze the most advanced 3D styles, as well as their differences, advantages and disadvantages for subsequent generation
- ◆ Integrate content developed in both the digital world (video games, VR, etc.) and the real world (AR, MR/XR)
- ◆ Establish the key points that differentiate a 3D project in the video game industry, cinema, TV series or the world of advertising
- ◆ Generate professional quality 3D assets using 3D Max and learn how to use the tool
- ◆ Maintain an organized workspace and maximize the efficiency of time spent generating 3D content

03

# Course Management

One of TECH's top priorities is to include in its programs a teaching team versed in the area in which they are developed. For this reason, for this Postgraduate Certificate has selected a faculty versed in the area of gamification design and development of video games with a broad and extensive career in the direction and management of projects of different kinds. In addition, it is a group of experts who are currently working, so they know in detail the latest techniques and design strategies in the industry.





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*Not all universities give you the opportunity to specialize with the best gamification experts. For TECH, however, it is a priority”*

## Management



### Mr. Ortega Ordóñez, Juan Pablo

- ♦ Director of Engineering and Gamification Design for the Intervenía Group
- ♦ Professor at ESNE of Video Game Design, Level Design, Video Game Production, Middleware, Creative Media Industries, etc
- ♦ Advisor in the foundation of companies such as Avatar Games or Interactive Selection
- ♦ Author of the book *Video Game Design*
- ♦ Member of the Advisory Board of Nima World

## Professors

### Mr. Pradana Sánchez, Noel

- ♦ Specialist in Rigging and 3D Animation for videogames
- ♦ 3D Graphic Artist at Dog Lab Studios
- ♦ Producer at Imagine Games leading the video game development team.
- ♦ Graphic artist at Wildbit Studios with 2D and 3D works.
- ♦ Teaching experience in ESNE and in the CFGS in 3D Animation: games and educational environments
- ♦ Masters Degree in Video Game Design and Development from ESNE University
- ♦ Master's Degree for Teachers by URJC
- ♦ Specialist in Rigging and 3D Animation Voxel School



# 04

## Structure and Content

The content of this Postgraduate Certificate has been developed by the teaching team based on the latest developments related to the 3D video game industry and taking into account the demanding criteria of topicality and quality that defines this university. As a result, the graduate who accesses this program will find in it the most complete and avant-garde syllabus, thanks to which they will be able to know in detail aspects such as the generation of assets, or the key factors of 3D applicable to different sectors.





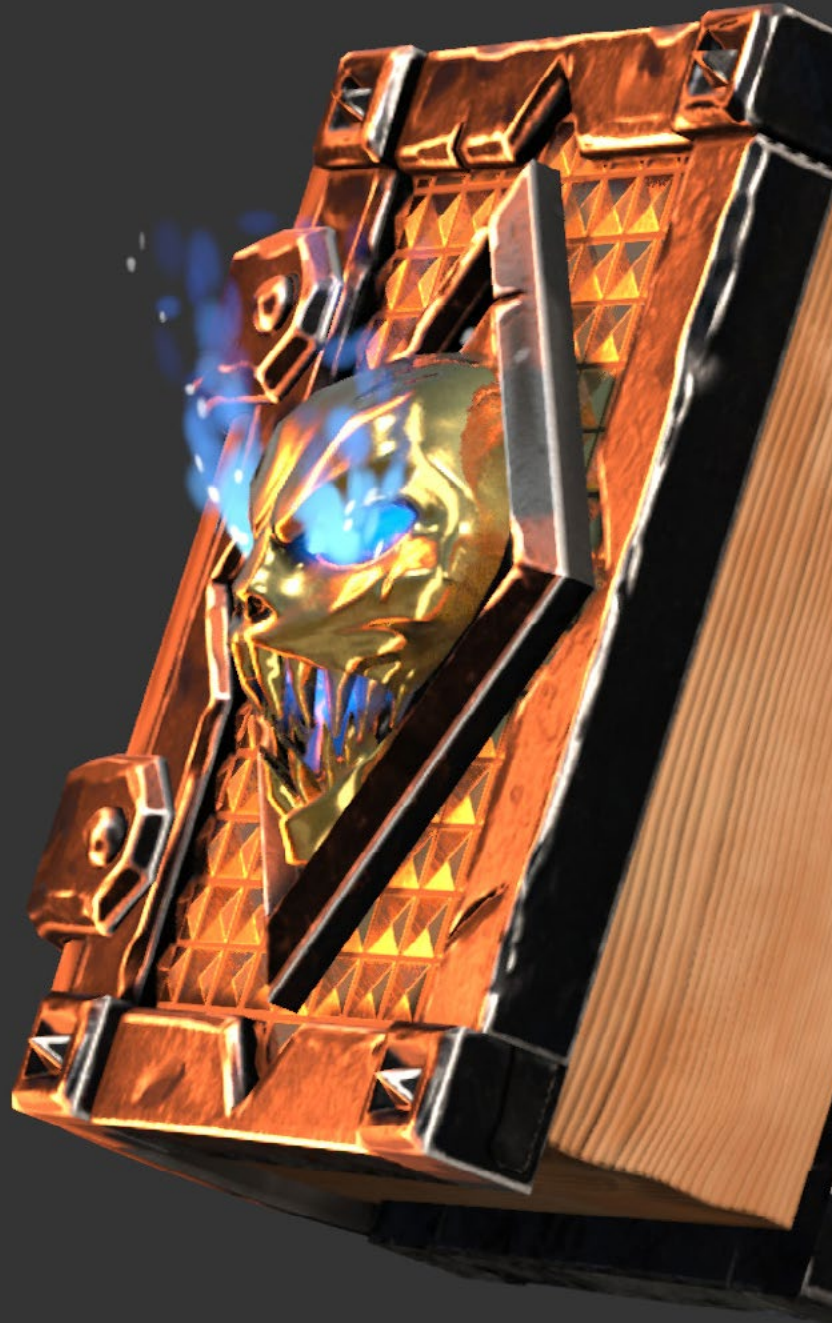
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*In the Virtual Campus you will find additional hours of material of great quality and presented in diverse formats so that you can delve, in a personalized way, in each section of the syllabus”*

## Module 1. The 3D Industry

- 1.1. 3D Industry in Animation and Video Games
  - 1.1.1. 3D Animation
  - 1.1.2. 3D Industry in Animation and Video Games
  - 1.1.3. 3D Animation Future
- 1.2. 3D in Video Games
  - 1.2.1. Video Games Limitations
  - 1.2.2. 3D Video Game Development Difficulties
  - 1.2.3. Solutions to Video Game Development Difficulties
- 1.3. 3D Software for Video Games
  - 1.3.1. Maya. Pros and Cons
  - 1.3.2. 3Ds Max. Pros and Cons
  - 1.3.3. *Blender*. Pros and Cons
- 1.4. Pipeline in 3D Asset Generation for Video Games
  - 1.4.1. Idea and Assembly from a *Modelsheet*
  - 1.4.2. Modeling with Low Geometry and High Detailing
  - 1.4.3. Projection of Textured Details
- 1.5. Key Artistic 3D Styles for Video Games
  - 1.5.1. Cartoon Style
  - 1.5.2. Realistic Style
  - 1.5.3. *Cel Shading*
  - 1.5.4. *Motion Capture*
  - 1.5.5. Etc
- 1.6. 3D Integration
  - 1.6.1. 2D Digital World Integration
  - 1.6.2. 3D Digital World Integration
  - 1.6.3. Real-World Integration (AR, MR/XR)
- 1.7. Key 3D Factors for Different Industries
  - 1.7.1. 3D in Film and Series
  - 1.7.2. 3D in Video Games
  - 1.7.3. 3D in Marketing





- 1.8. Render: Real-time Rendering and Pre-Rendering
  - 1.8.1. Lighting
  - 1.8.2. Shadow Definition
  - 1.8.3. Quality vs Speed
- 1.9. 3D Asset Generation in 3D Max
  - 1.9.1. 3D Max Software
  - 1.9.2. Interface, Menus, Toolbars
  - 1.9.3. Controls
  - 1.9.4. Scene
  - 1.9.5. Viewports
  - 1.9.6. Basic Shapes
  - 1.9.7. Object Generation, Modification and Transformation
  - 1.9.8. 3D Scene Creation
  - 1.9.9. 3D Professional Asset Modeling for Video Games
  - 1.9.10. Material Editors
    - 1.9.10.1. Creating and Editing Materials
    - 1.9.10.2. Applying Light to Materials
    - 1.9.10.3. UVW Map Modifier. Mapping Coordinates
    - 1.9.10.4. Texture Creation
- 1.10. Workspace Organization and Best Practices
  - 1.10.1. Creation of a Project
  - 1.10.2. Folder Structure
  - 1.10.3. Custom Functionality



*Enroll in this Postgraduate Certificate and take a firm step towards a successful working future in the 3D and video game design industry"*

# 05 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.*



*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 is the most widely used learning system in the best faculties in the world. 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 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 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.

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.

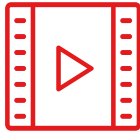
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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.



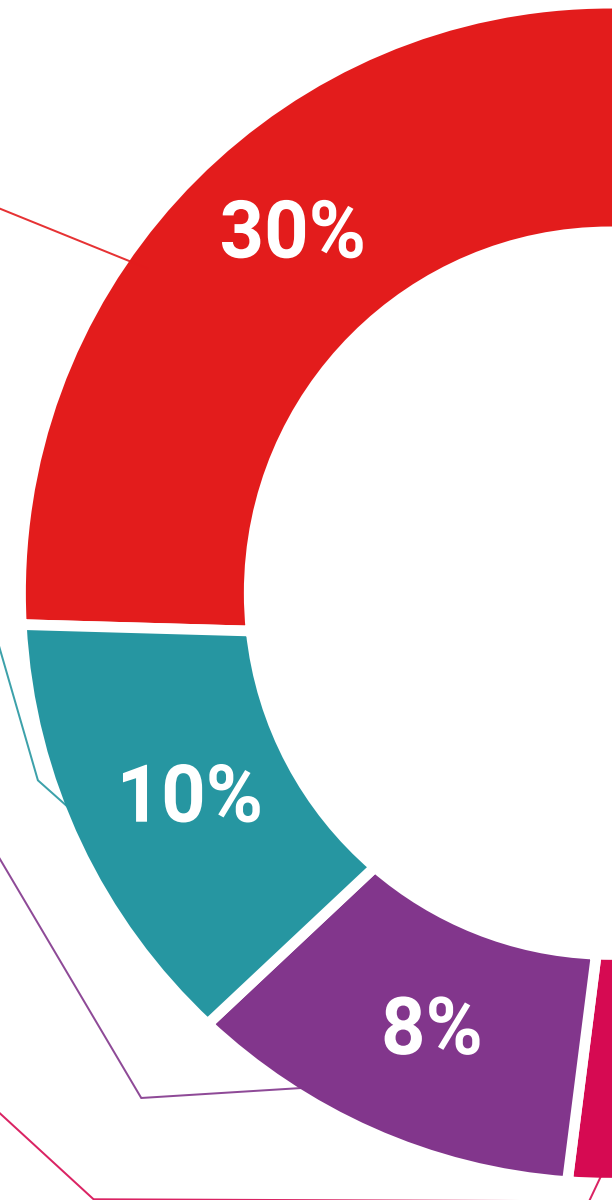
### Practising Skills and Abilities

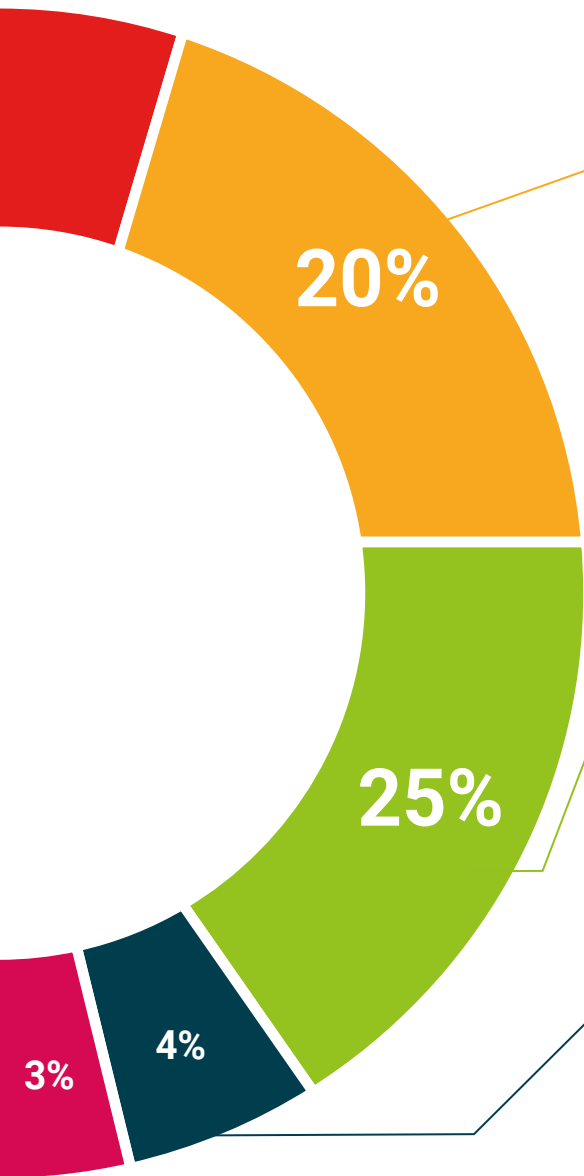
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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.





#### 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 3D Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 program will allow you to obtain your **Postgraduate Certificate in 3D Industry** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in 3D Industry**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global 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 quality  
development languages  
classroom



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