

# Postgraduate Certificate Character Rigging





## Postgraduate Certificate Character Rigging

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

Website: [www.techtitute.com/us/videogames/postgraduate-certificate/character-rigging](http://www.techtitute.com/us/videogames/postgraduate-certificate/character-rigging)

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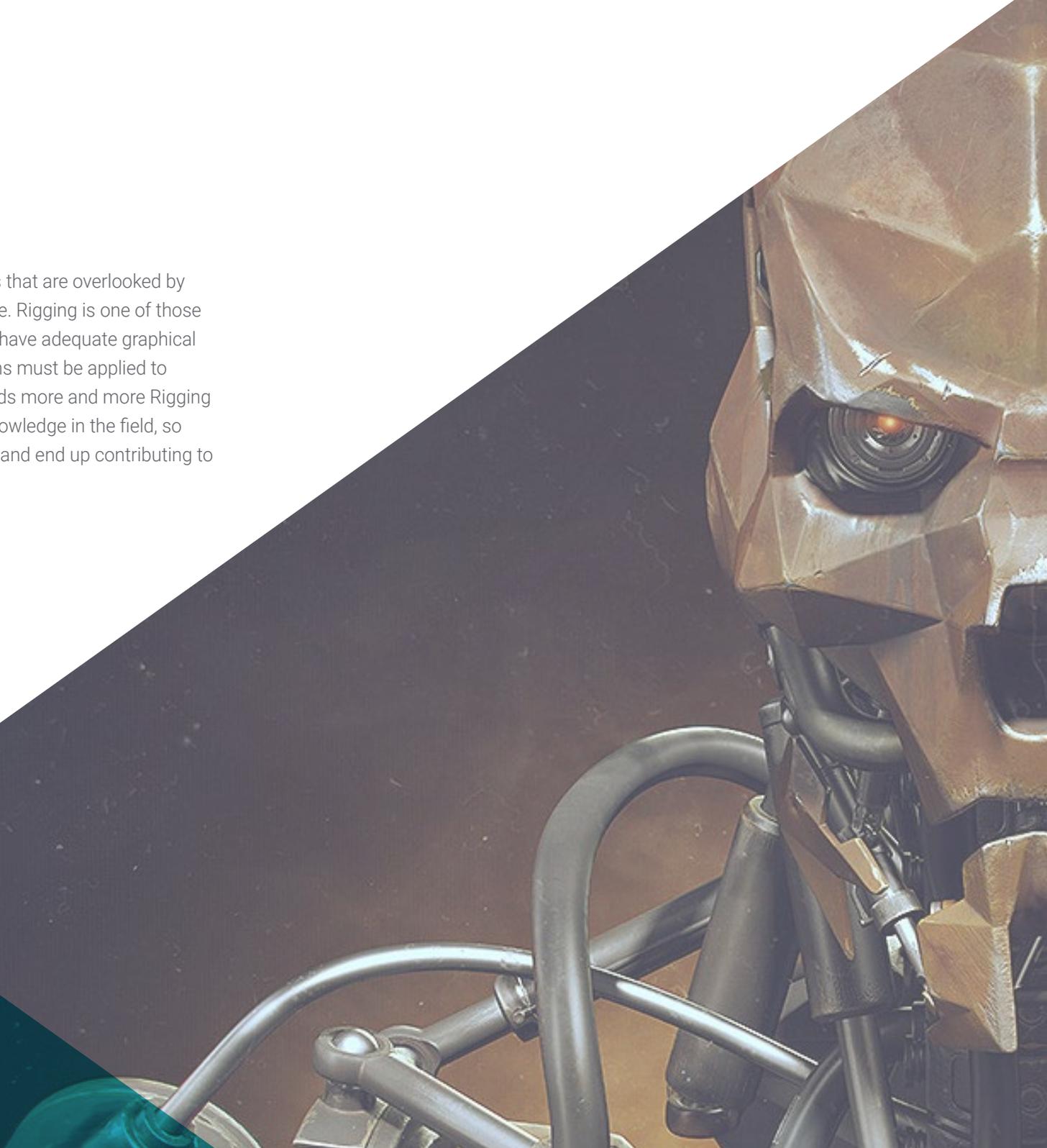
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# 01

# Introduction

Sometimes, there are a number of elements of video games that are overlooked by the public that are vitally important to the gaming experience. Rigging is one of those elements. In order for the characters in each video game to have adequate graphical behavior, a set of modifications, alterations and deformations must be applied to make their movements realistic. Therefore, the industry needs more and more Rigging experts and, for that reason, this program offers the best knowledge in the field, so that students can access the main companies in the sector and end up contributing to the major games of the future.





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*Character Rigging is fundamental for the success of a video game. Specialize with this Postgraduate Certificate and enter into the best companies in the industry”*

The design and creation of video games is a complex process involving a large number of departments and specialists. Therefore, when undertaking a project of this type, it is necessary to have programmers, art and sound designers, music composers, gameplay experts and many other professionals with very specific skills.

In the field of character design and animation, there is also a high level of specialization. Therefore, within this discipline there is another one that is dedicated to a very specific area of animation: Rigging. This term refers to a series of elements pertaining to character animation that, if done correctly, make the experience much more realistic for users.

Rigging, therefore, has to do with the way in which the characters move and interact with the video game environment, making them deform correctly according to their movements and contact with other objects and elements that are within their reach.

This Postgraduate Certificate in Character Rigging offers students the best knowledge in this specialized discipline, so that they can work immediately in some of the major companies in the industry thanks to the skills they will acquire in this program.

The **Postgraduate Certificate in Character Rigging** 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 experts in Characters Animation and Design
- ◆ Its graphic, schematic and practical contents, with which they are created, provide scientific and practical information on Character Rigging
- ◆ Practical exercises where the self-assessment process can be carried out to improve learning
- ◆ Special emphasis on innovative methodologies in Character Rigging
- ◆ 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



*Become an expert in Character Rigging with this Postgraduate Certificate*

“*The industry needs Rigging specialists to achieve success in their projects”*

*If you want to enter the video game industry, but don't know how, this program is what you are looking for.*

*Learn all about Character Rigging and become an essential professional for your company.*

The program's teaching staff includes professionals from the sector who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

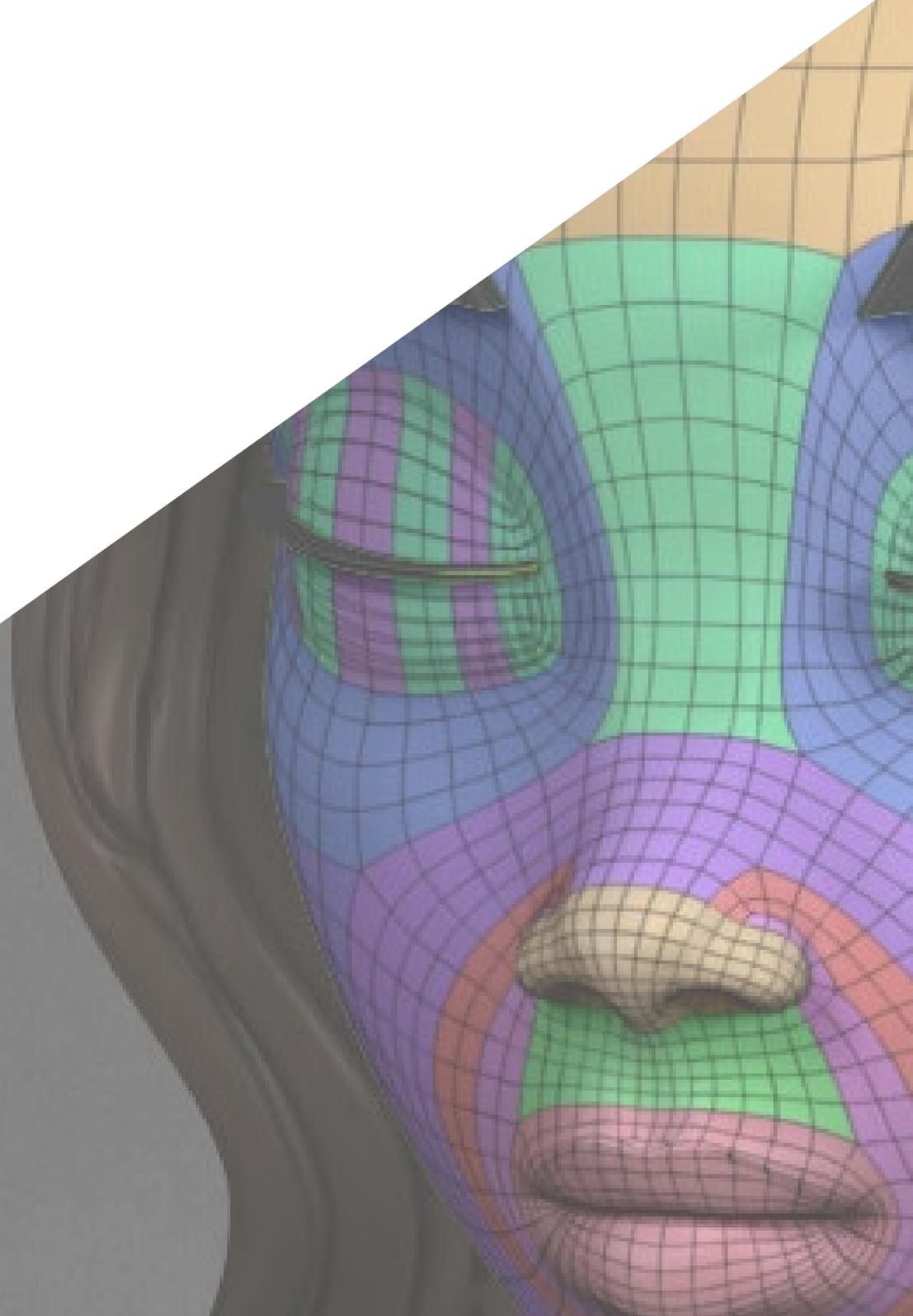
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

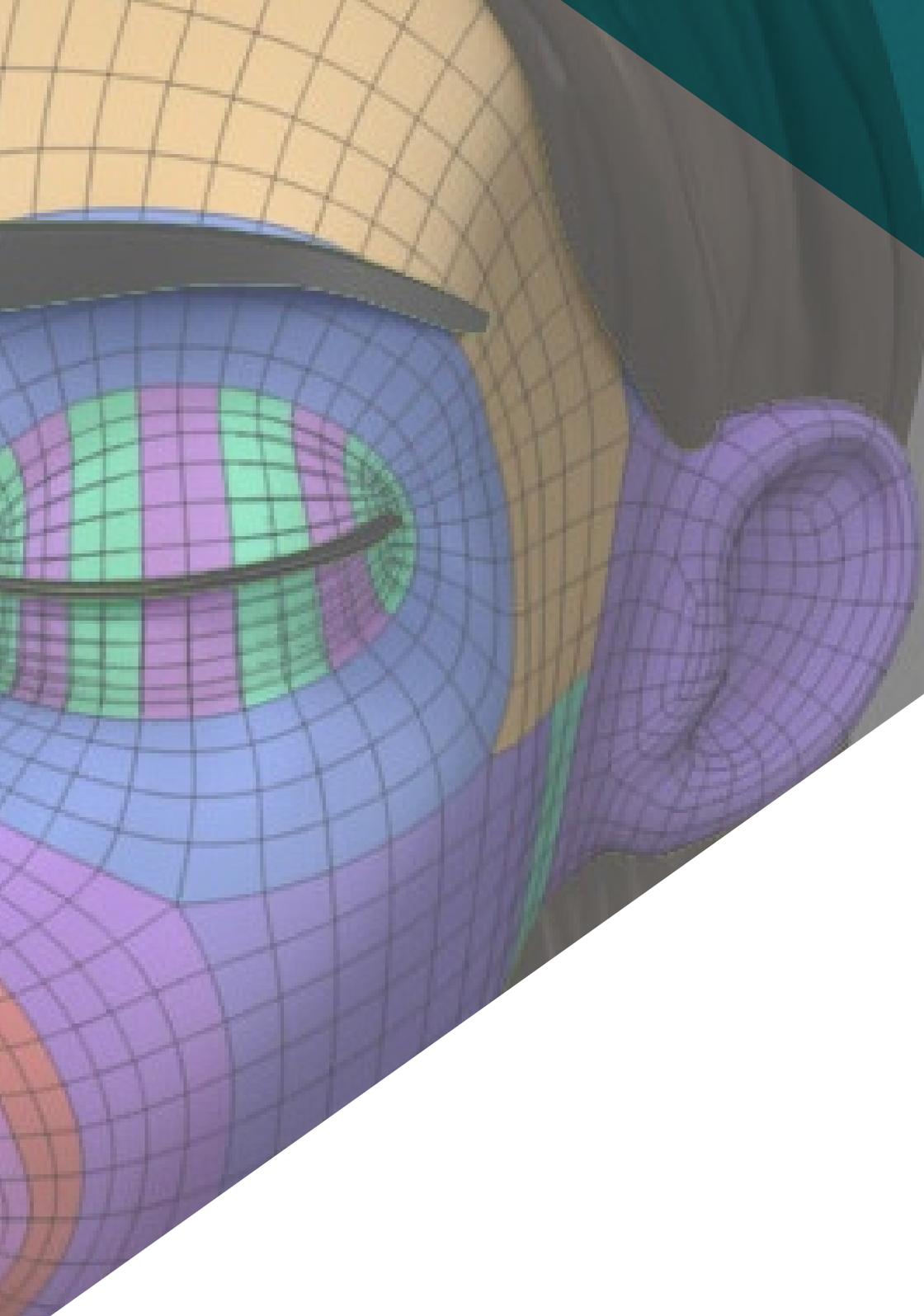
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.



# 02 Objectives

The main objective of this Postgraduate Certificate in Character Rigging is to offer its students all the keys to become great experts in this discipline. With the knowledge they will acquire in this program, students will be able to access important positions within the department of Character Animation in the largest game design companies in the world, so that their goal of succeeding in this sector is much closer.





“

*Your goal is to work in the companies that have designed your favorite video games and this Postgraduate Certificate will bring you closer to doing so”*



## General Objectives

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- ◆ Understanding the concept of Rigging
- ◆ Understand the importance of Rigging in character design within video games
- ◆ Gain general skills in 3D modeling
- ◆ Know the different elements that intervene in character design



*The Video Game industry is waiting for you. Specialize now"*





## Specific Objectives

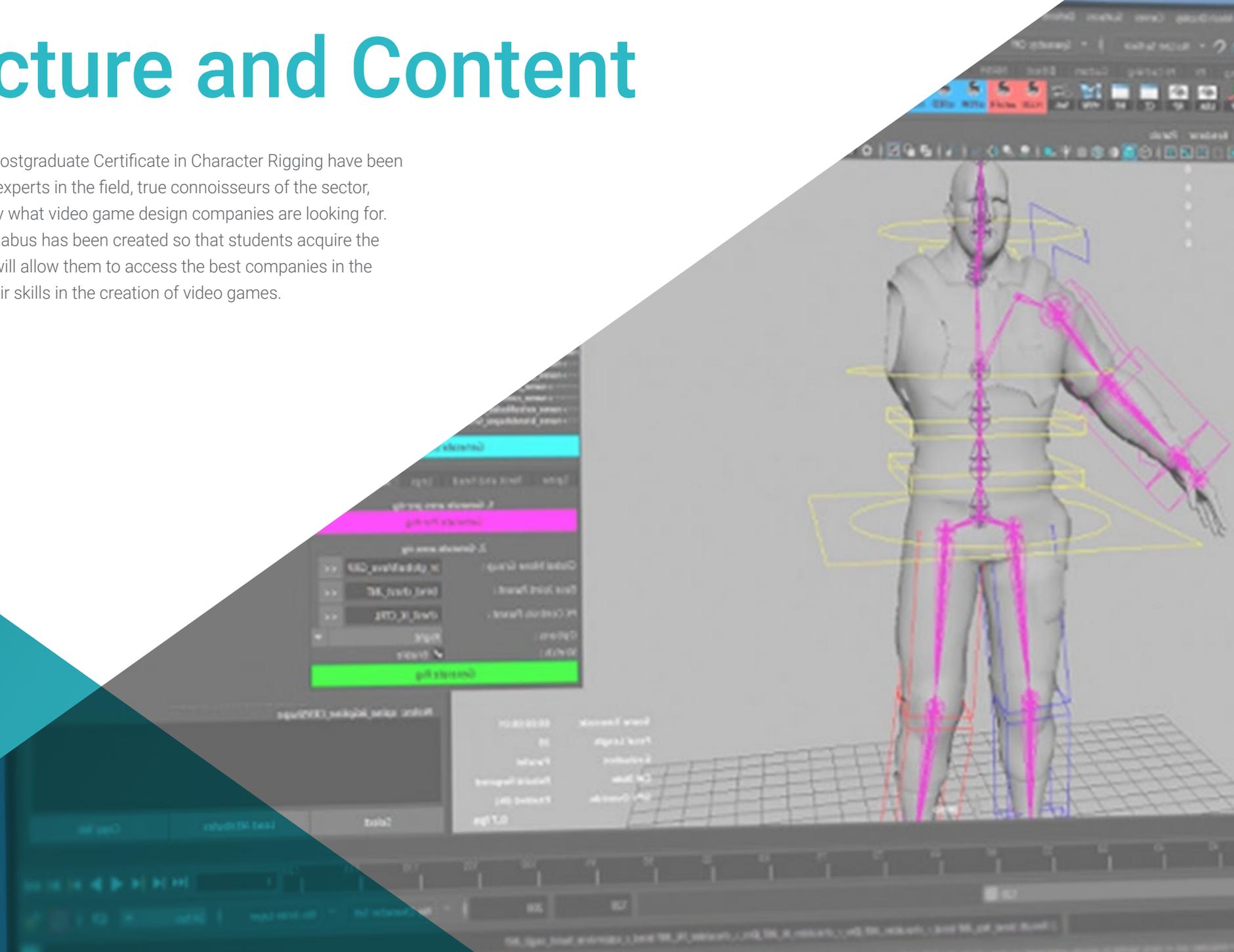
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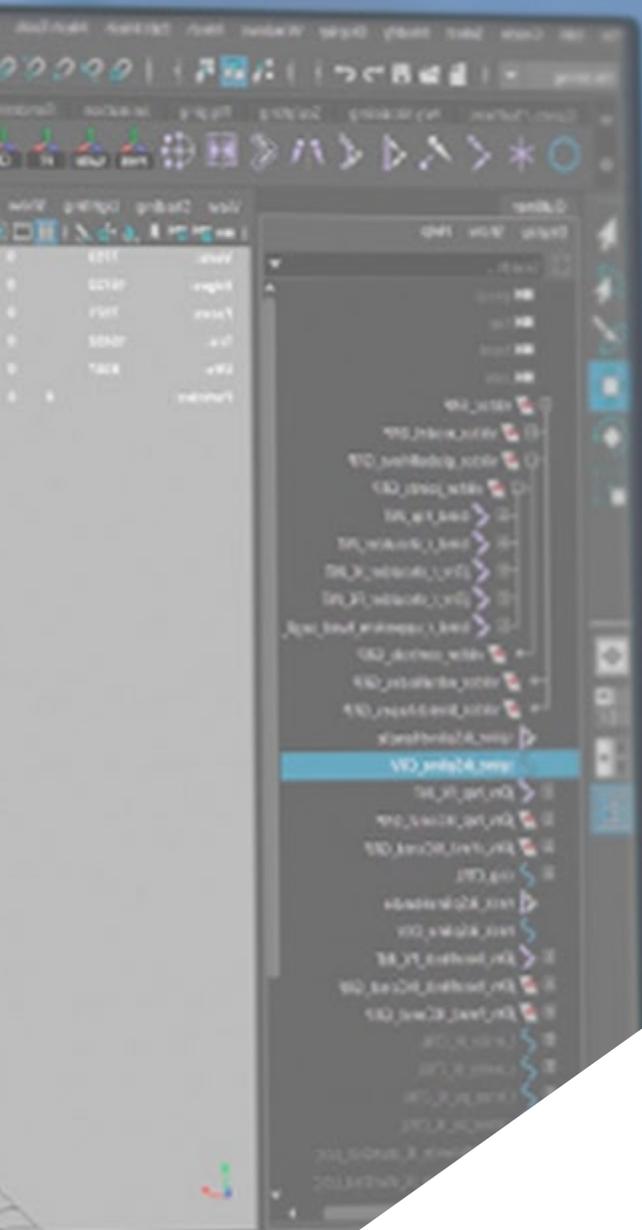
- ◆ Prepare 3D elements for animation
- ◆ Apply physically correct deformations to 3D models
- ◆ Acquire skills in the use of digital tools
- ◆ Learn skills on character weighing for animation

# 03

## Structure and Content

The contents of this Postgraduate Certificate in Character Rigging have been designed by the best experts in the field, true connoisseurs of the sector, so they know perfectly what video game design companies are looking for. Consequently, this syllabus has been created so that students acquire the necessary skills that will allow them to access the best companies in the world and develop their skills in the creation of video games.





“

*The best content for you to specialize in Character Rigging”*

## Module 1. Character Rigging

- 1.1. Functions of a Rigger. Knowledge of a Rigger. Types of Rig
  - 1.1.1. What is a Rigger?
  - 1.1.2. Functions of a Rigger
  - 1.1.3. Knowledge of a Rigger
  - 1.1.4. Types of Rig
  - 1.1.5. Blender Rigging Facilities
  - 1.1.6. First Contact with Bones and Restrictions
- 1.2. Bone Chains and Bone Pairing. FK and IK Differences and Restrictions
  - 1.2.1. Bone Chains
  - 1.2.2. Bone Pairing
  - 1.2.3. FK and IK Chain
  - 1.2.4. Differences Between FK and IK
  - 1.2.5. Use of Restrictions
- 1.3. Human Skeleton and Facial Rig. Shape Keys
  - 1.3.1. Human Skeleton
  - 1.3.2. Advanced Human Skeleton
  - 1.3.3. Facial Rig
  - 1.3.4. Shape Keys
- 1.4. Vertex Weighing. Complete Weighing of a Character and Creation of a Pose
  - 1.4.1. Weighing System
  - 1.4.2. Character Weighing: Face
  - 1.4.3. Character Weighing: Body
  - 1.4.4. Use of Model Pose
- 1.5. Character Rig: IK- FK Spine System
  - 1.5.1. Location of Bones and Pairing
  - 1.5.2. FK Systems
  - 1.5.3. IK Systems
  - 1.5.4. Other Options
  - 1.5.5. Controls





- 1.6. Character Rig: IK- FK Arm System
  - 1.6.1. Location of Bones and Pairing
  - 1.6.2. FK Systems
  - 1.6.3. IK Systems
  - 1.6.4. Other Options
  - 1.6.5. Controls
- 1.7. Character Rig: IK- FK Hand System
  - 1.7.1. Location of Bones and Pairing
  - 1.7.2. FK Systems
  - 1.7.3. IK Systems
  - 1.7.4. Other Options
  - 1.7.5. Controls
- 1.8. Character Rig: IK- FK Leg System
  - 1.8.1. Location of Bones and Pairing
  - 1.8.2. FK Systems
  - 1.8.3. IK Systems
  - 1.8.4. Other Options
  - 1.8.5. Controls
- 1.9. Facial
  - 1.9.1. Facial Configuration
  - 1.9.2. Use of Shape Keys
  - 1.9.3. Use of Buttons
  - 1.9.4. Eye Configuration
  - 1.9.5. Squash and Stretch of the Head
- 1.10. Shape Corrections and Facial Configuration
  - 1.10.1. Shape Corrections
  - 1.10.2. Pose Mode
  - 1.10.3. Easy Weighing
  - 1.10.4. Leaving the Rig Ready for Production

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.*



*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 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.



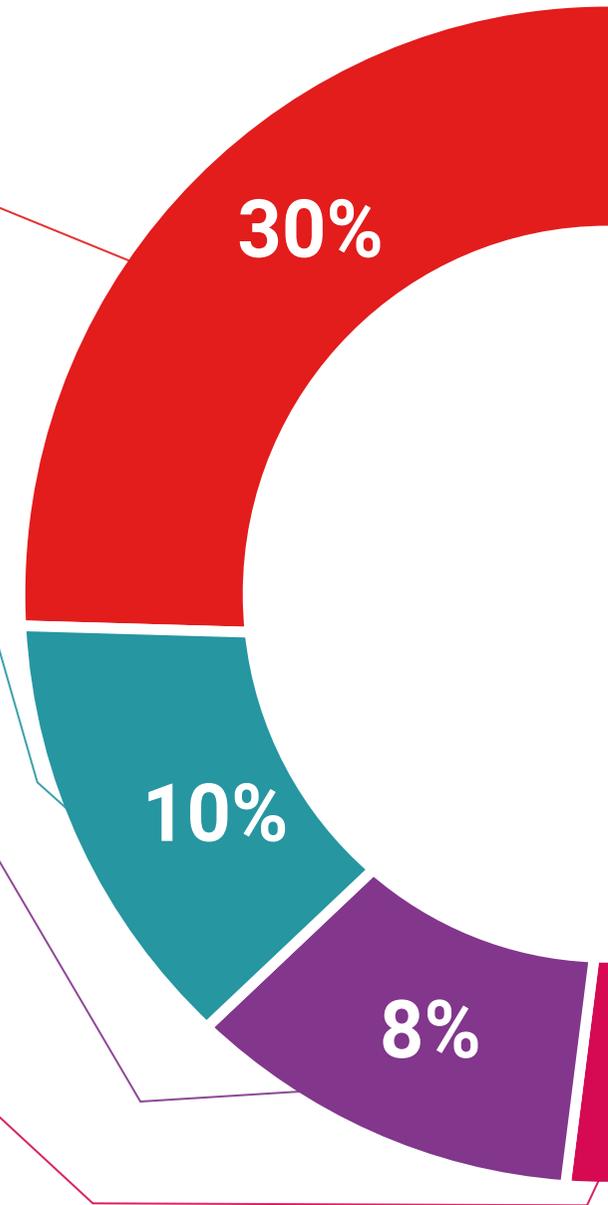
### Practising Skills and Abilities

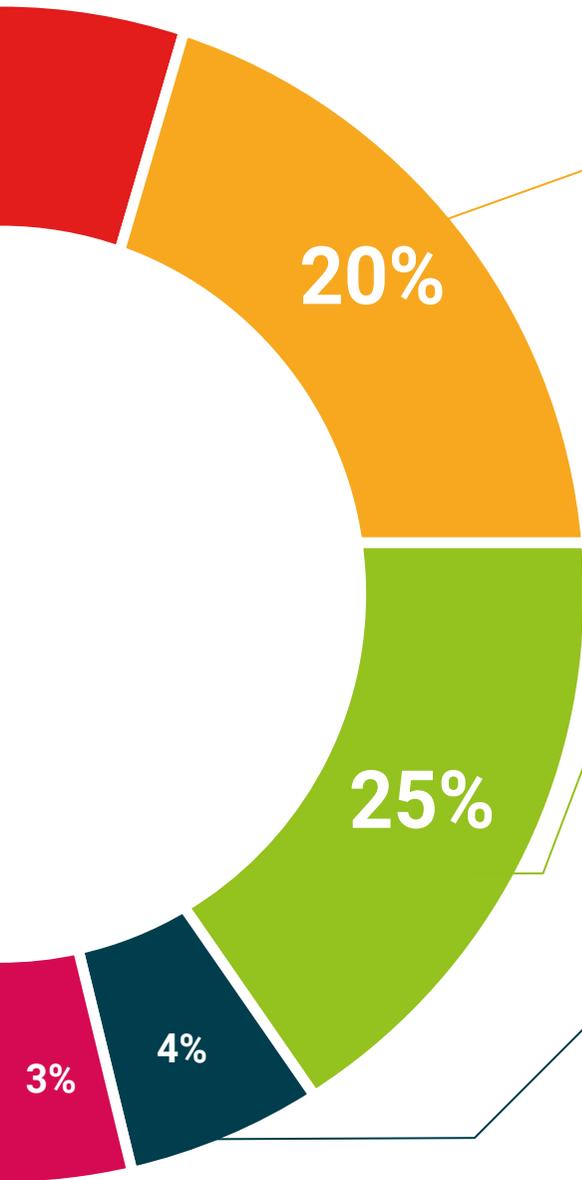
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### 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 Character Rigging guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.





*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 Character Rigging** 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 Character Rigging**

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 University 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 lang  
classroom



## Postgraduate Certificate Character Rigging

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

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