

# Postgraduate Certificate Body Deformation Rigging





## Postgraduate Certificate Body Deformation Rigging

- » 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/body-deformation-rigging](http://www.techtitute.com/us/videogames/postgraduate-certificate/body-deformation-rigging)

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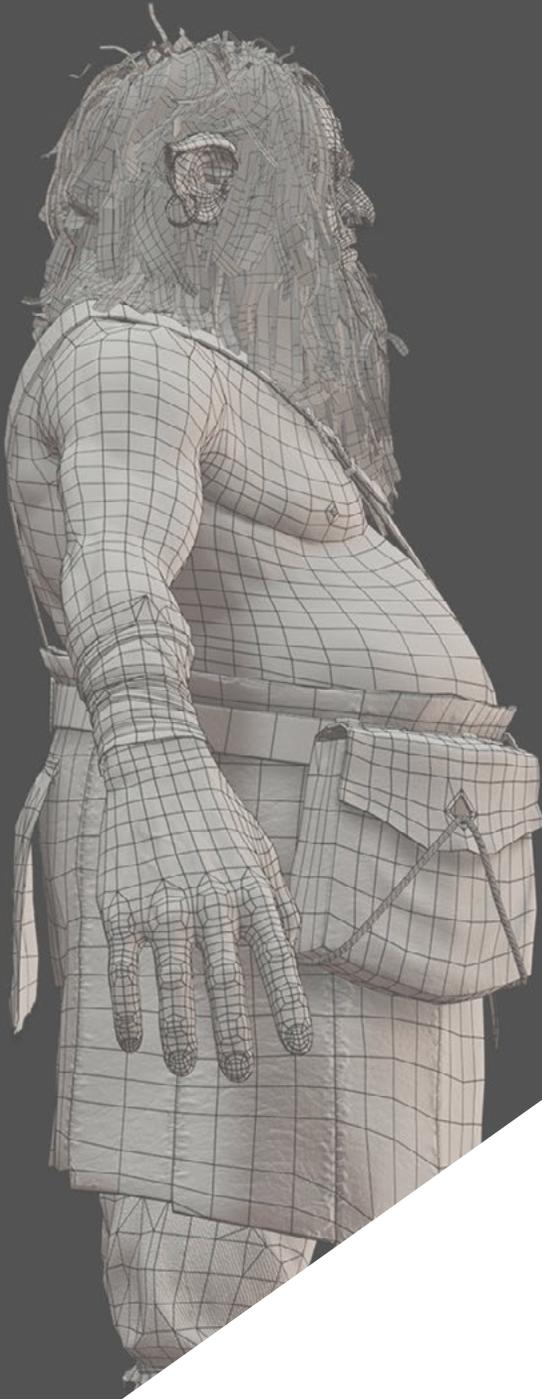
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# 01

# Introduction

The process of body deformation is one of the most important when building a character. It is the base around which the visible elements will be placed, and more importantly, the structure that will give it movement. For this reason, the correct achievement of this phase is vital in order to generate a credible final product. In this sense, TECH has developed a program that explains in depth the concept of body deformation and emphasizes Joints and absolute and smoothed influences as the basis of the process. All this, following an innovative and proven methodology that facilitates learning through an online modality and contents presented in multiple formats.





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*In this Postgraduate Certificate, you will learn how to connect Joints properly so that your character moves in a realistic way”*

Not so many years ago, when the Play Station 3 was the novelty, only the main characters were developed in depth. Meanwhile, the secondary characters and the rest of the game's elements required a significantly lower investment of resources. Nowadays, however, even the most irrelevant character is developed in great detail.

As a result, the role of Rigger is becoming more and more sought after, while the levels of professionalism required are increasing. In an effort to meet this demand, TECH has developed a Postgraduate Certificate to meet these demands. With techniques and tools at the forefront of the sector and a teaching team formed by experts in the field.

Body deformation is one of the first phases of a Rigger's work. So, this program begins by explaining in a specialized way the study of the model and the approach of a mechanical system for the character. Always adjusted to the specifications of the production Among the proposed contents we have focused on Joints, Skinning and influence painting.

The course will be taught in a totally online mode, without timetables and with all the material available from the first moment. It will only be necessary a device with internet connection to carry out the learning process. The intention behind this methodology is that the student can set their own time.

This **Postgraduate Certificate in Body Deformation Rigging** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in body deformation Rigging
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ 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



*The Postgraduate Certificate takes into account the painting of absolute influences with two, three or more Joints and the painting of smoothed influences for the upper and lower train"*

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*Maya offers an extensive range of tools to carry out the Skinning process. TECH faculty will teach you how it works and the shortcuts that exist”*

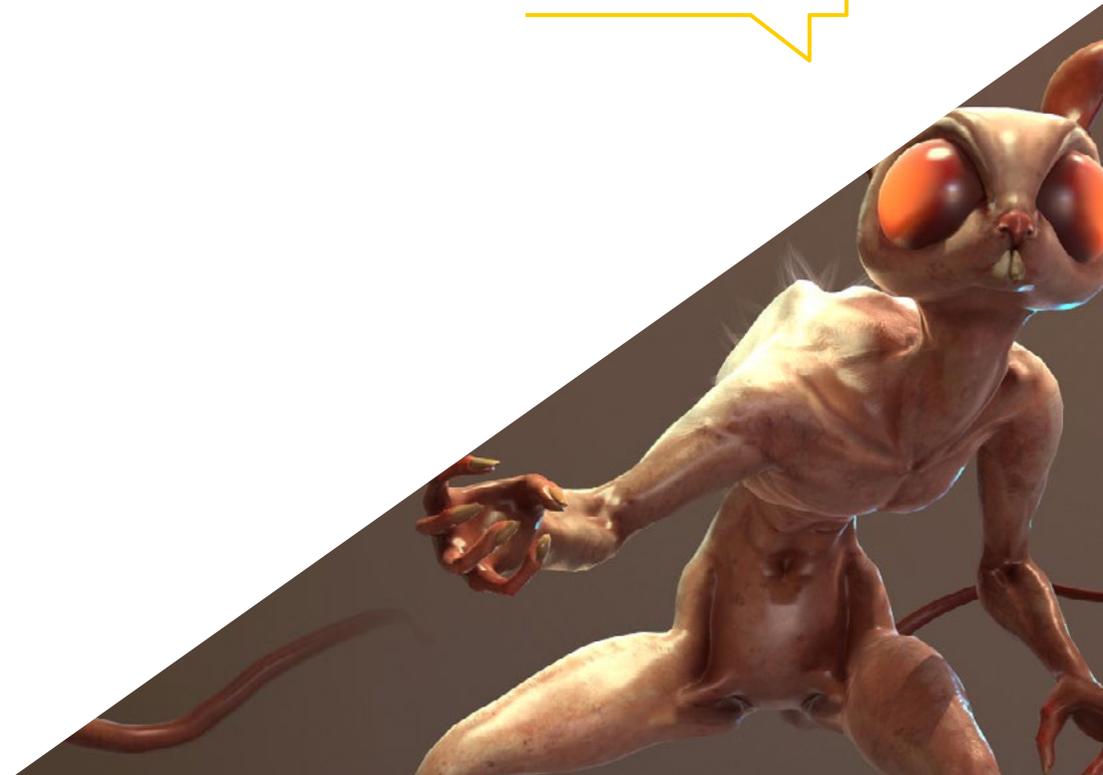
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*TECH teachers will teach you how to correctly orient the Joints so that the result is realistic.*

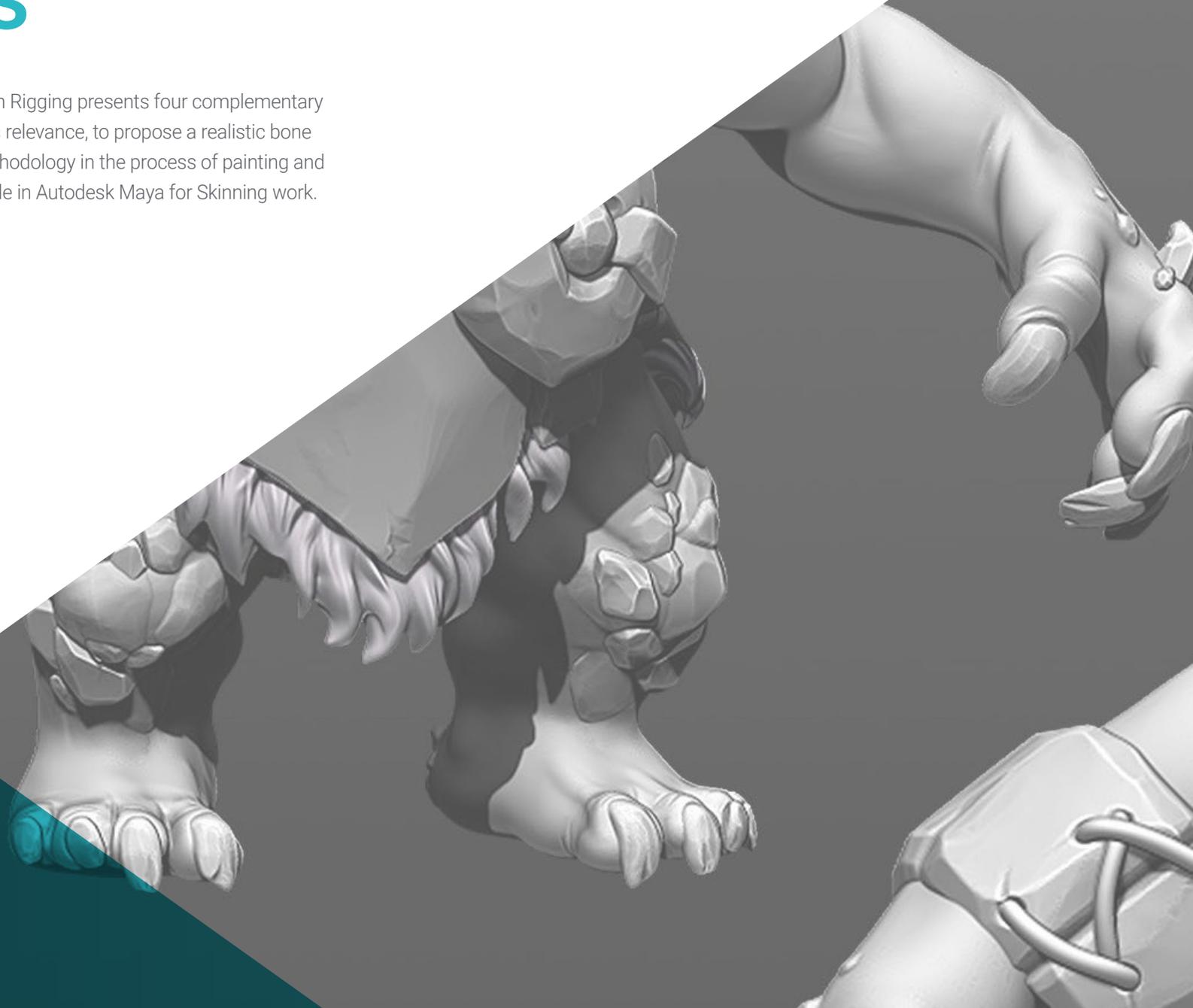
*In the first topics of this Postgraduate Certificate, you will learn how to analyze the pose of the model to implement it in your bone system.*



# 02

## Objectives

The Postgraduate Certificate in Body Deformation Rigging presents four complementary objectives: to explain Deformation Rigging and its relevance, to propose a realistic bone system through Joints, to establish a correct methodology in the process of painting and to understand the functioning of the tools available in Autodesk Maya for Skinning work.





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*Bone chains are the basis of every 3D character. Learn how to create them correctly thanks to this Postgraduate Certificate"*



## General Objectives

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- ◆ Define Deformation Rigging
- ◆ Work with bone systems and bone chains
- ◆ Learn specific tools and methodologies of Autodesk Maya
- ◆ Learn how to work with Joints



*As a complex process, Deformation Rigging can present certain errors. However, our program is designed to identify them quickly and correct them"*





## Specific Objectives

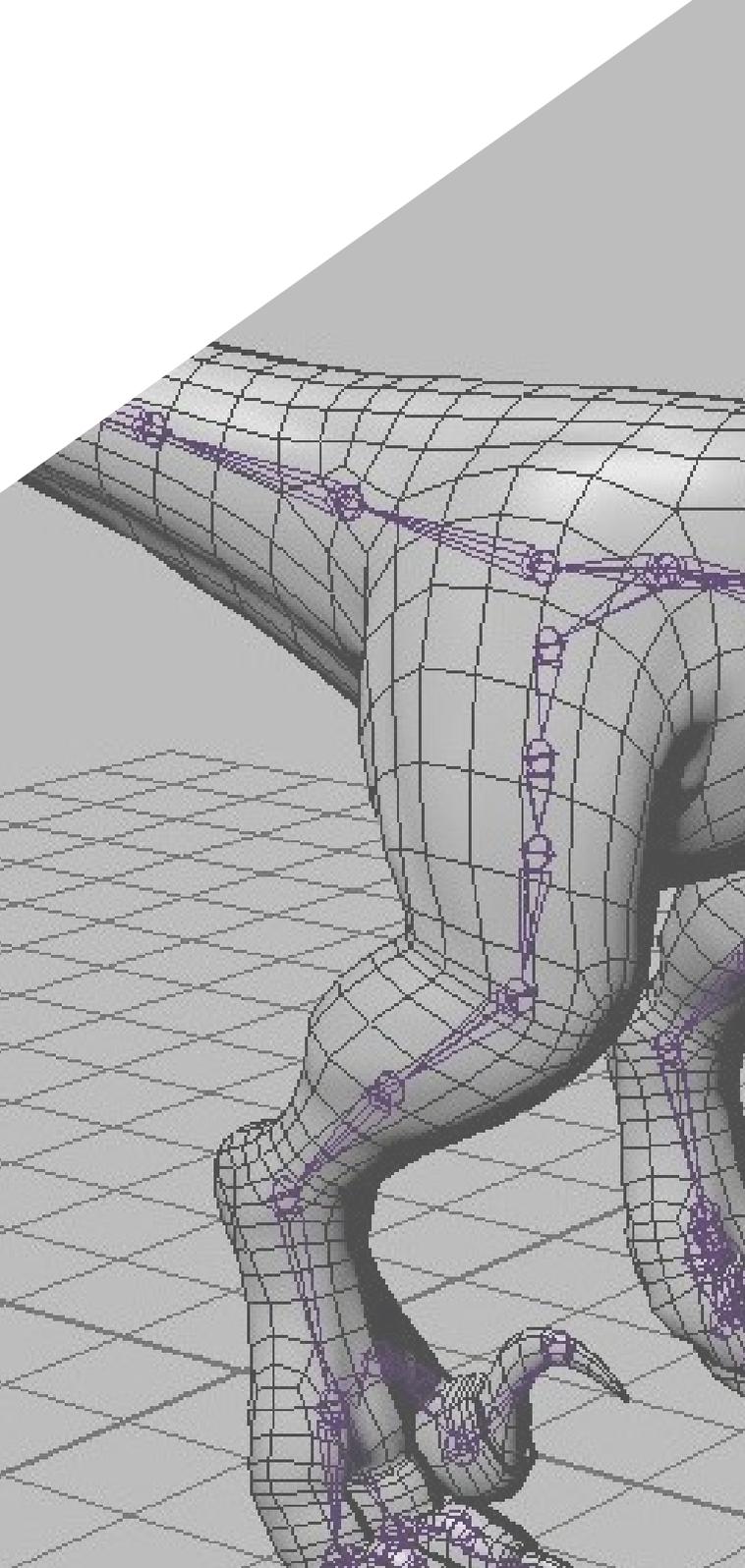
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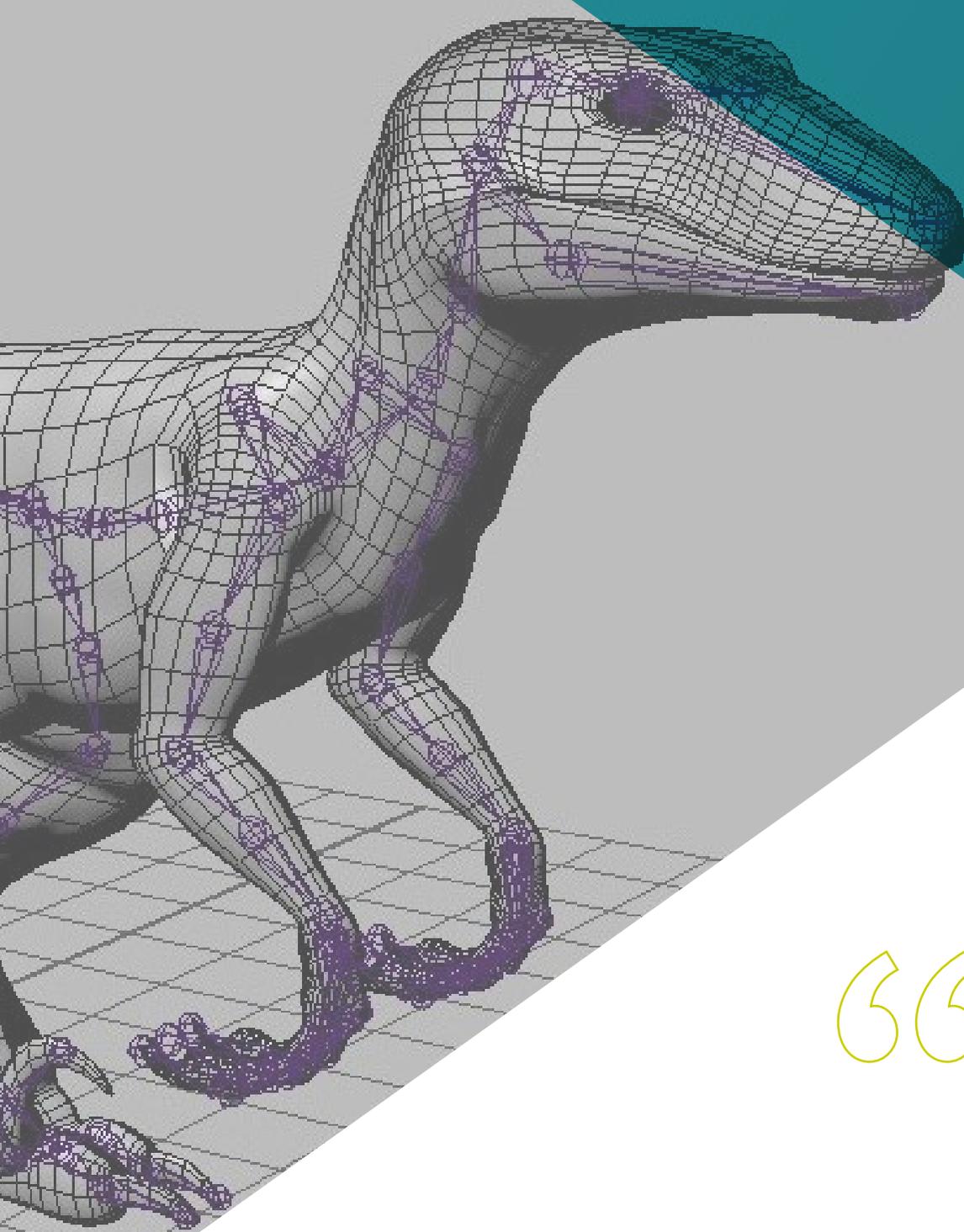
- ◆ Have specialized knowledge of the way the deformation rigging and its relevance
- ◆ Set up the bone system by studying the pose of the model
- ◆ Conceive the possible errors that can occur in deformation Rigging
- ◆ Create a bone chain by means of Jointstype elements
- ◆ Know how to correctly orient and place bones in the deformation system
- ◆ Perform a correct methodology in the painting process to understand the influences on the geometry
- ◆ Conceive how all the tools available in Autodesk Maya work for Skinning

# 03

# Course Management

The TECH faculty that has developed this Postgraduate Certificate has recent experience in Rigging projects. This means that the knowledge provided is up to date with the latest developments in the sector. The student will learn how to perform deformations in a professional and time-optimized manner. For this purpose, the professionals in charge of the qualification will provide practical advice, based on their familiarity with the Rigger's work.





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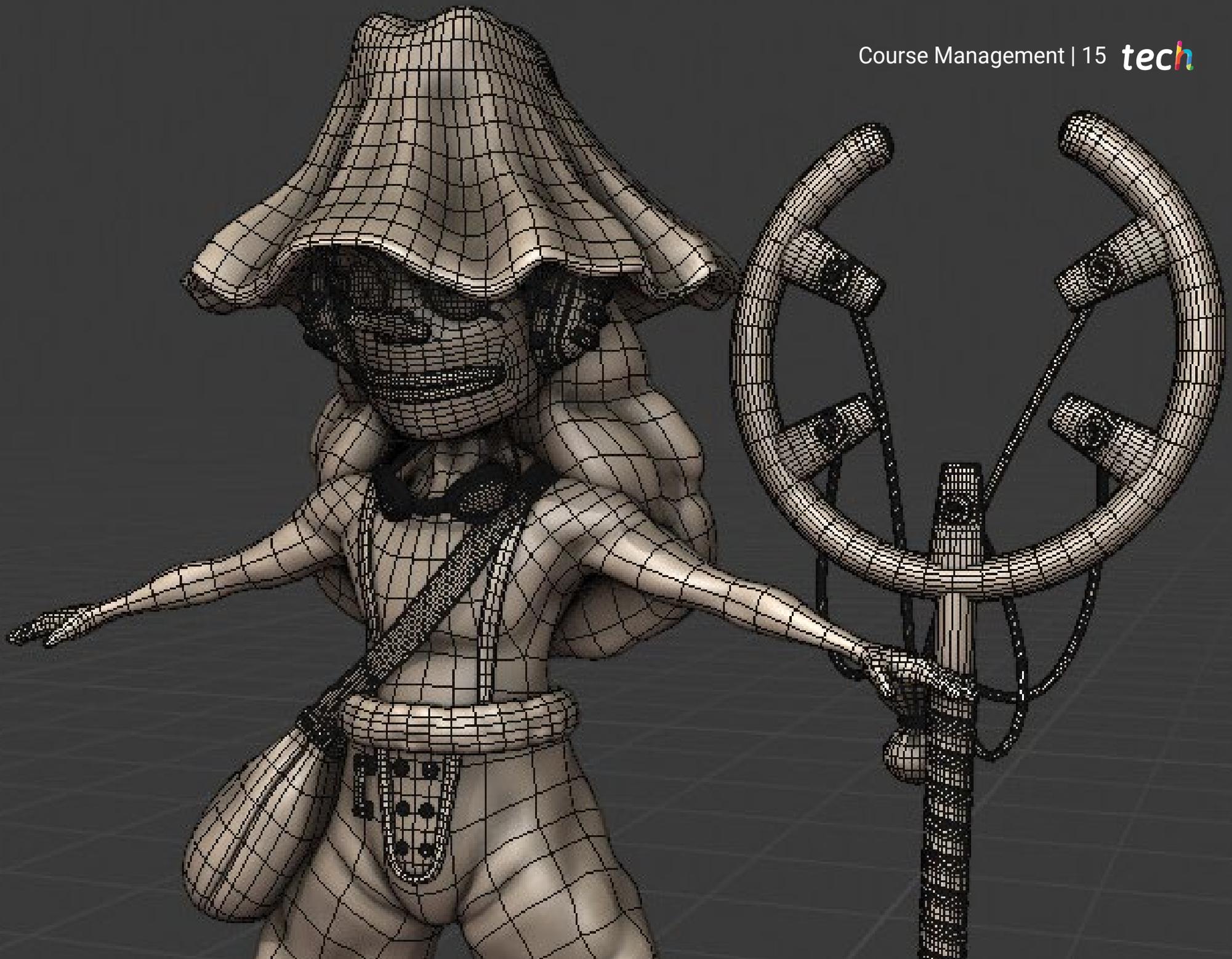
*At TECH, you will work with real Rigging projects so that the theoretical learning is assimilated in an effective way”*

## Management



### Mr. Guerrero Cobos, Alberto

- Rigger and animator Video Games videogame Vestigion Lovem Games
- Master's Degree in Art and Production in Animation by the University of South Wales
- Master's Degree in 3D Character Modeling at ANIMUM
- Master's Degree in 3D Character Animation for Film and Video Games by ANIMUM
- Degree in Multimedia and Graphic Design at the University School of Design and Technology (ESNE)



# 04

## Structure and Content

This program discusses deformation controls and how to use them. It starts with the creation of Joints chains and their orientation. It then explains the Skinning process, the painting of absolute influences and goes deeper into the different types of influences: upper body, lower body, clavicle, etc. All this, with the intention of creating characters as realistic as possible to add value to the productions.



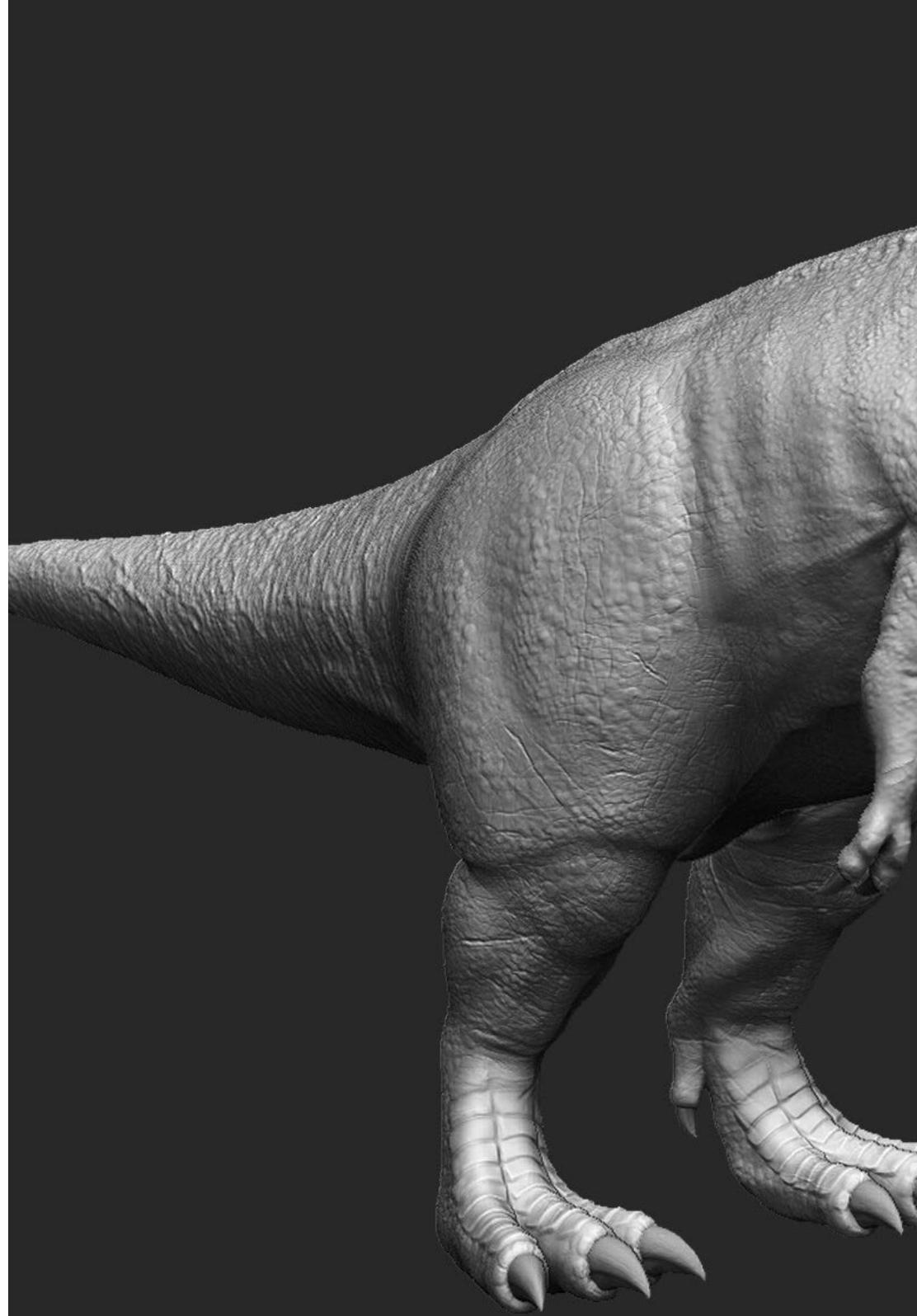


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*This Postgraduate Certificate places special emphasis on working with Joints This is a basic element of the body deformation software"*

## Module 1. Body deformation Rigging

- 1.1. Systems and Models
  - 1.1.1. Revision of the Model
  - 1.1.2. System Vulnerabilities
  - 1.1.3. Joints Nomenclatures
- 1.2. Joints Chain Creation
  - 1.2.1. Joints Editing Tools
  - 1.2.2. Factors to Consider
  - 1.2.3. Location and Hierarchy of Joints
- 1.3. Joints Orientation
  - 1.3.1. The Importance of a Correct Orientation
  - 1.3.2. Joints Orientation Tools
  - 1.3.3. Symmetry of Joints
- 1.4. Skinning
  - 1.4.1. Skeleton to Geometry Linking
  - 1.4.2. Influence Painting Tools
  - 1.4.3. Symmetry of Influences in the Model
- 1.5. Painting of Influences Absolutes
  - 1.5.1. Influence Painting Process Approach
  - 1.5.2. Influences on Body Parts Between Two Joints
  - 1.5.3. Influences on Body Parts Between Three or More Joints
- 1.6. Smoothed Lower Body Influences of the Character
  - 1.6.1. Joint Movements
  - 1.6.2. Animations for Influence Smoothing
  - 1.6.3. Smoothing Process
- 1.7. Smoothed Upper Body Influences
  - 1.7.1. Joint Movements
  - 1.7.2. Animations for Influence Smoothing
  - 1.7.3. Smoothing Process





- 1.8. Smoothed Influences Arm and Hand
  - 1.8.1. Joint Movements
  - 1.8.2. Animations for Influence Smoothing
  - 1.8.3. Smoothing Process
- 1.9. Smoothed Clavicle Influences
  - 1.9.1. Joint Movements
  - 1.9.2. Animations for Influence Smoothing
  - 1.9.3. Smoothing Process
- 1.10. Skinning End Processes
  - 1.10.1. Reflection of Symmetrical Influences
  - 1.10.2. Error Correction with Deformers
  - 1.10.3. Skin Cluster Deformation Baking

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*TECH teaches you how to copy and reproduce similar elements, so you don't have to repeat processes and speed up your work"*

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.





“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



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



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

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

The case method has been the most widely used learning system among the world's leading 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.



06

# Certificate

The Postgraduate Certificate in Body Deformation Rigging 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 Body Deformation Rigging** 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 Body Deformation Rigging**

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  
virtual classroom



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