

Postgraduate Certificate

3D Creature Modeling



Postgraduate Certificate 3D Creature Modeling

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

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/3d-creature-modeling



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01

Introduction

Creatures seen in video games and in the world of cinema have evolved throughout history in unimaginable ways. The 3D modeling of creatures is increasingly present in the entertainment industry and without this discipline many of the great productions that are known today would not exist. In order for the students to be able to give the best of themselves in a sector that is booming, this complete 100% online training has been developed. Students will have the necessary resources to succeed in this sector and will digitally capture the creatures that inhabit their imagination thanks to the advanced knowledge that this program provides.



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You have before you the most successful option to improve your 3D creature creation and achieve a professional quality improvement"

Movies like Star Wars, Guardians of the Galaxy or War of the Planet of the Apes would be meaningless without the animation of digital creatures. Animal anatomy along with movement and behavior are factors that significantly influence the animation of 3D creatures. From a computer science point of view, it can be admitted that inside it there is a very long code that refers to the final result through other code systems called programs in order to see what it hides in generic compression.

For this reason, this Postgraduate Certificate in 3D Creature Modeling provides the student with the necessary updating of skills in a constantly evolving environment. In this way, the necessary knowledge is given to be able to face the supervision and technical direction and thus be able to become an expert computer scientist in 3D creatures in film, advertising and video game companies.

In order to bring the student up to date with the latest in 3D modeling, this program contains the latest innovative three-dimensional creature design techniques with which professionals can distinguish themselves significantly and be prepared for greater responsibilities and, therefore, better jobs.

In addition, TECH takes into account the needs of its students, which is why the program is offered in an online format that requires neither classes nor on-site attendance of any kind. All didactic material is available for downloading from any mobile device, greatly facilitating the study process.

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

- ◆ The development of case studies presented by experts in 3D modeling
- ◆ The graphic, schematic, and eminently practical contents with which they are created, provide 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



It is time for you to stand out in an industry full of creativity by bringing professionalism and an innovative approach thanks to this Postgraduate Certificate"

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Thanks to this course you will master such a powerful technology in the computer world as XGen, developed by Walt Disney for its best movies”

The program's teaching staff includes professionals from the sector who bring to this training the experience of their work, in addition to recognized specialists from prestigious reference societies and 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 training programmed to train 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.

In order to lighten the course load of this Postgraduate Certificate, it will not be necessary for you to do a final project.

You will be able to recreate in detail from the fur of fantastic creatures to the scales of dragons.



02

Objectives

This program aims to improve the student's 3D creature modeling techniques. Therefore, emphasis is placed on the handling and control of the XGen interface in Maya. This technology has been developed by Walt Disney and can be seen in movies such as Toy Story or Up. Thus, the student is guaranteed a complete professional improvement upon completion of the qualification.



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*TECH provides you with the best tools
to help you grow professionally as a
computer expert in 3D modeling”*



General Objectives

- ◆ Expand knowledge of human and animal anatomy in order to develop hyper-realistic creatures
- ◆ Master the retopology, UVS and texturing to perfect the models created
- ◆ Create an optimal and dynamic workflow to work more efficiently with 3D modeling
- ◆ Have the skills and knowledge most in demand in the 3D industry to be able to apply for the best jobs





Specific Objectives

- Learn the modeling of different types of animal anatomy
- Review the different types of reptiles and how to create scales with Displacement and Alphas maps
- Investigate how to export models to Mari for realistic texturing
- Learn more about Grooming and how to Groom animals with XGen
- Render models in Arnold Render in Maya

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The video game and film industry is increasingly calling for professionals competent in the creation of three-dimensional creatures”

03

Course Management

In order to ensure that future graduates are guaranteed a first-class education, TECH has selected teachers with extensive experience in 3D modeling of creatures for both the video game industry and the film industry. In this way, the faculty provides students with advanced knowledge in 3D design from their own work experience.



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*Specialized teachers with years of experience
in this modeling will teach you how to create
fantastic creatures never seen before”*

Management



Ms. Gómez Sanz, Carla

- 3D Generalist at Blue Pixel 3D
- Concept Artist, 3D Modeler, Shading in Timeless Games Inc.
- Collaboration with multinational consulting firm for the design of vignettes and animation for commercial proposals
- Advanced Technician in 3D Animation, video games and interactive environments at CEV School of Communication, Image and Sound
- Master's Degree and Bachelor's Degree in 3D Art, Animation and Visual Effects for video games and cinema at CEV School of Communication, Image and Sound



04

Structure and Content

This Postgraduate Certificate in 3D Creature Modeling gathers the best theoretical and practical content on animal anatomy. From reptiles, amphibians and mammals to feathered animals. In addition, it delves into the analysis of the jaw and creation of teeth. It also delves into the different types of fantastic animals and their possible musculatures. Together with audiovisual and practical support material, the student will be able to recreate any 3D creature as faithfully as possible.



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Delve into the anatomy of fantastic creatures to recreate them in a hyper-realistic way"

Module 1. Creature Modeling

- 1.1. Understanding Animal Anatomy
 - 1.1.1. Study of the Bones
 - 1.1.2. Proportions of an Animal Head
 - 1.1.3. Anatomic Differences
- 1.2. Anatomy of the Skull
 - 1.2.1. Animal Face
 - 1.2.2. Muscles of the Head
 - 1.2.3. Skin Layer, Over Bones and Muscles
- 1.3. Anatomy of the Spine and Thoracic Cage
 - 1.3.1. Animal Torso and Hip Musculature
 - 1.3.2. Central Axis of its Body
 - 1.3.3. Creation of Torsos in Different Animals
- 1.4. Animal Musculature
 - 1.4.1. Muscle
 - 1.4.2. Synergy Between Muscles and Bones
 - 1.4.3. Shapes of an Animal Body
- 1.5. Reptiles and Amphibians
 - 1.5.1. Reptilian Skin
 - 1.5.2. Small Bones and Ligaments
 - 1.5.3. Fine Detail
- 1.6. Mammals
 - 1.6.1. Fur
 - 1.6.2. Larger, Stronger Bones and Ligaments
 - 1.6.3. Fine Detail





- 1.7. Animals with Feathers
 - 1.7.1. Plumage
 - 1.7.2. Elastic and Light Bones and Ligaments
 - 1.7.3. Fine Detail
- 1.8. Analysis of the Jaw and Creation of Teeth
 - 1.8.1. Animal Specific Teeth
 - 1.8.2. Detailing of Teeth
 - 1.8.3. Teeth in the Jaw Cavity
- 1.9. Creation of Fur, Fur for Animals
 - 1.9.1. XGen in Maya: Grooming
 - 1.9.2. XGen: Feathers
 - 1.9.3. Render
- 1.10. Fantastic Animals
 - 1.10.1. Fantastic Animal
 - 1.10.2. Complete Modeling of the Animal
 - 1.10.3. Texturing, Lighting and Rendering

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Thanks to this Postgraduate Certificate you will be able to create the next iconic creature of a video game or movie”

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"

At TECH we use the Case Method

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

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



We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition.



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

A learning method that is different and innovative

This intensive Information Technology program at TECH Technological University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH Technological University you will use Harvard case studies, with which we have a strategic agreement that allows us, to offer you material from the best university in the world.

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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 Information Technology 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. Throughout the course, students 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

Our university is the first in the world to combine Harvard University case studies with a 100%-online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance Harvard case studies 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 university 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.



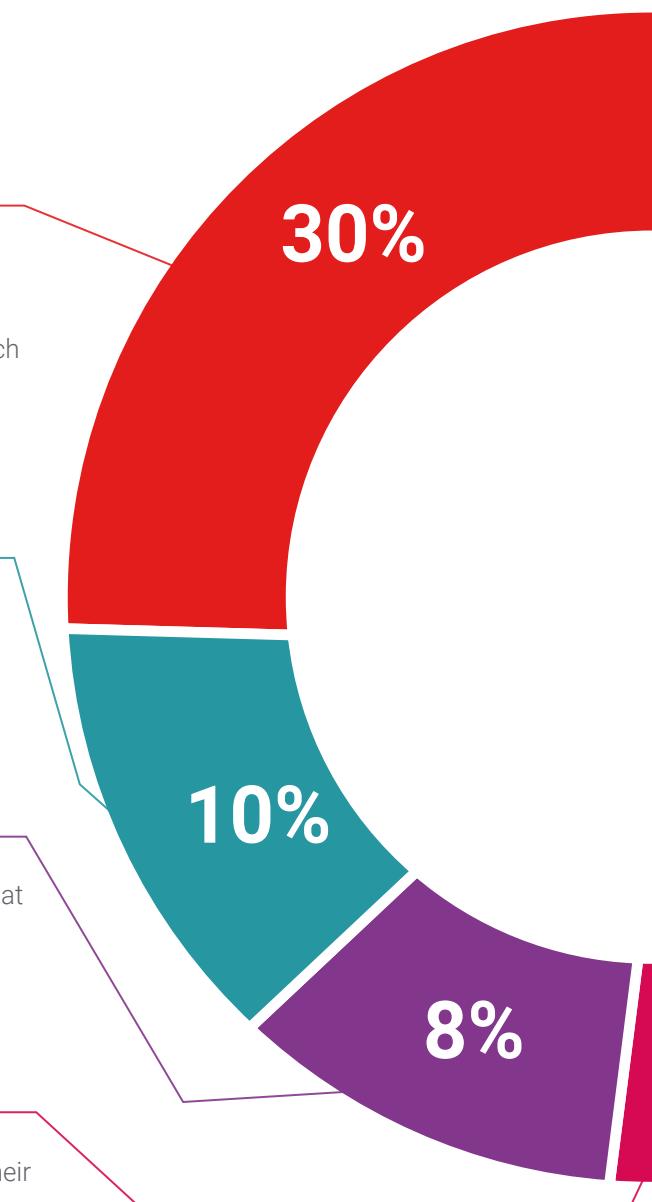
Practising Skills and Abilities

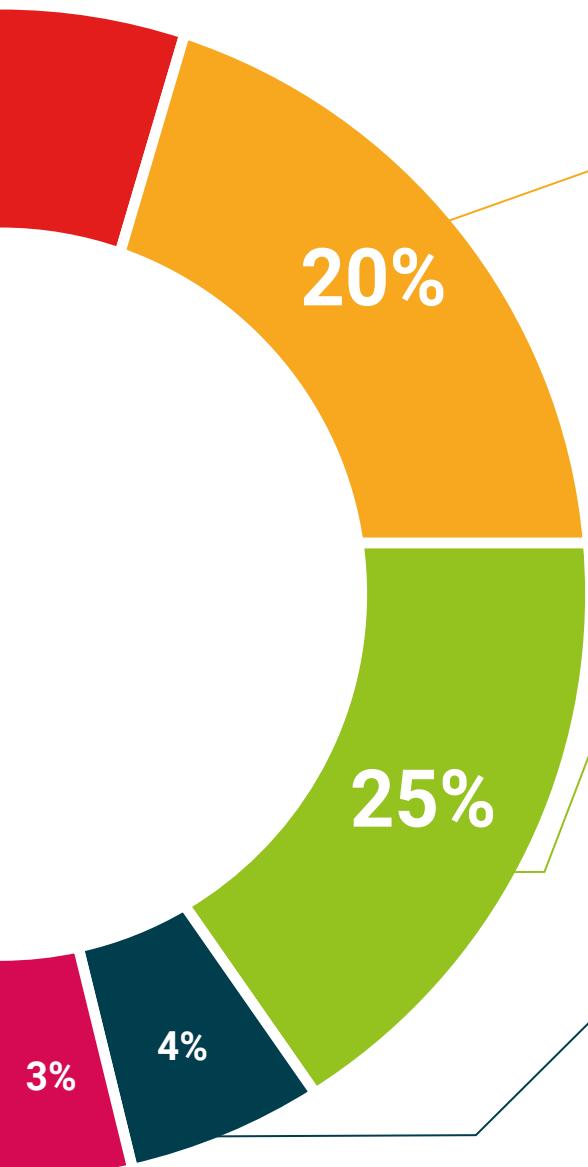
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



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

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management 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 multimedia content presentation training Exclusive system 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 your goals.



06

Certificate

The Postgraduate Certificate in 3D Creature Modeling guarantees, in addition to the most rigorous and up-to-date training, access to a certificate issued by TECH Technological University.



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*Successfully complete this training program
and receive your university certificate
without travel or laborious paperwork"*

This **Postgraduate Certificate in 3D Creature Modeling** contains the most complete and up-to-date scientific 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 through the Postgraduate Certificate and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in 3D Creature Modeling**

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.



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