

# Postgraduate Certificate 3D Clothing Simulation



## Postgraduate Certificate 3D Clothing Simulation

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

Website: [www.techtute.com/us/videogames/postgraduate-certificate/3d-clothing-simulation](http://www.techtute.com/us/videogames/postgraduate-certificate/3d-clothing-simulation)

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# 01

# Introduction

A protagonist's clothing is almost as important as their personality or their plot role. The clothing worn by the most beloved characters is even reproduced by cosplay enthusiasts, who proudly wear and imitate the clothes of their favorite models. This shows the importance of this field of design when facing a 3D modeling project of video games, with which a good designer can positively stand out and assume the responsibility of dressing the protagonists of the title. TECH has prepared this qualification for all designers to acquire the expertise with which to relaunch their careers making the most spectacular costumes in the video game scene.



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*You will be the stylist of the most iconic characters in video games, following traditional styles or creating new aesthetics around them"*

In any video game it is essential to have good outfits that helps to bring different nuances to the characters or even to the title itself. This clothing, moreover, must be correctly animated to favor the immersion and realism of the plot told. These important tasks fall on the staff of 3D design and modeling.

The three-dimensional design professional must be prepared to be able to create and simulate the behavior of any type of garment, whether fantastic or futuristic. Therefore, you should delve into tools such as Marvelous Designer, created specifically for this purpose.

This TECH Postgraduate Certificate instructs the student in an advanced use of Marvelous Designer, so that they master each functionality of it to give a much more realistic and professional look to all designs of your personal portfolio. It also covers the final process of creating the garment, polishing details in ZBrush and finally texturing in Maya.

A program that is taught completely online, without the usual obligation to attend classes or have predetermined fixed schedules. This allows great flexibility for the students, who are the ones who decides their own pace of study and how to assume the entire teaching load.

This **Postgraduate Certificate in 3D Clothing Simulation** contains the most complete and up-to-date program on the market. Its most notable features are:

- ◆ The development of case studies presented by experts in 3D modeling
- ◆ 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 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



*Make your models wear clothes admired even by the most prestigious designers"*

“

*This is the ideal time to focus your career in the world of video games and access better jobs that do not stop emerging”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 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.

*You will dress your favorite heroes or new ones you decide to create. With this Postgraduate Certificate, the only limit is your imagination.*

*The excellence and exquisiteness of the clothes you create for all types of 3D models will be your best letter of introduction in the video game industry.*



# 02

## Objectives

The objective of this qualification is to train its students to access better jobs within the video game industry, demonstrating their personal excellence and professionalism when creating fabrics and clothing of all kinds. With an advanced knowledge in such a specific and necessary area in any 3D modeling department, the student will have the possibility to greatly improve their job and economic prospects.







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*You will have in your hands the responsibility of dressing heroes, villains and characters from the best video game sagas"*



## General Objectives

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- ◆ 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

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- ◆ Study the use of Marvelous Designer
- ◆ Create fabric simulations in Marvelous Designer
- ◆ Practice different types of complex patterns in Marvelous Designer
- ◆ Delve into the professional workflow from Marvelous to ZBrush
- ◆ Develop the texturing and *shading* of clothes and fabrics in Mari

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*Enroll today in this Postgraduate Certificate and do not wait to specialize in an industry in which only the best continue to grow”*

# 03

## Course Management

The realization of this Postgraduate Certificate in 3D Clothing Simulation has fallen into a professional team with extensive experience in the millimeter recreation of any type of garment. Thanks to their expertise, the teaching staff imparts the teaching material with their own personal experience, making it even more useful for the student to be up to date both to the latest industry software and the demands of the market itself.



“

*You will climb several professional steps thanks to the help of the TECH teaching team, involved 100% in improving your skills and current position"*

## International Guest Director

Joshua Singh is a leading professional with over 20 years of experience in the video game industry, internationally recognized for his skills in art direction and visual development. With solid training in software such as Unreal, Unity, Maya, ZBrush, Substance Painter and Adobe Photoshop, he has made a significant mark in the field of game design. In addition, his experience spans visual development in both 2D and 3D, and is distinguished by his ability to collaboratively and thoughtfully solve problems in production environments.

In addition, as Art Director at Marvel Entertainment, he has collaborated with and guided elite teams of artists, ensuring that the artwork meets the required quality standards. He has also served as Lead Character Artist at Proletariat Inc. where he has created a safe environment for his team and has been responsible for all character assets in video games.

With an outstanding track record, including leadership roles at companies such as Wildlife Studios and Wavedash Games, Joshua Singh has been an advocate for artistic development and a mentor to many in the industry. Not to mention his time at large and well-known companies, such as Blizzard Entertainment and Riot Games, where he has worked as a Senior Character Artist. And, among his most relevant projects, stands out for his participation in hugely successful video games, including Marvel's Spider-Man 2, League of Legends and Overwatch.

Thus, his ability to unify the vision of Product, Engineering and Art has been fundamental to the success of numerous projects. Beyond his work in the industry, he has shared his experience as an instructor at the prestigious Gnomon School of VFX and has been a presenter at renowned events such as the Tribeca Games Festival and the ZBrush Summit.



## D. Singh, Joshua

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- Art Director at Marvel Entertainment, California, USA
- Lead Character Artist at Proletariat Inc.
- Art Director at Wildlife Studios
- Art Director at Wavedash Games
- Senior Character Artist at Riot Games
- Senior Character Artist at Blizzard Entertainment
- Artist at Iron Lore Entertainment
- 3D Artist at Sensory Sweep Studios
- Senior Artist at Wahoo Studios/Ninja Bee
- General Studies from Dixie State University
- Degree in Graphic Design from Eagle Gate Technical College



*Thanks to TECH, you will be able to learn with the best professionals in the world"*

## 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



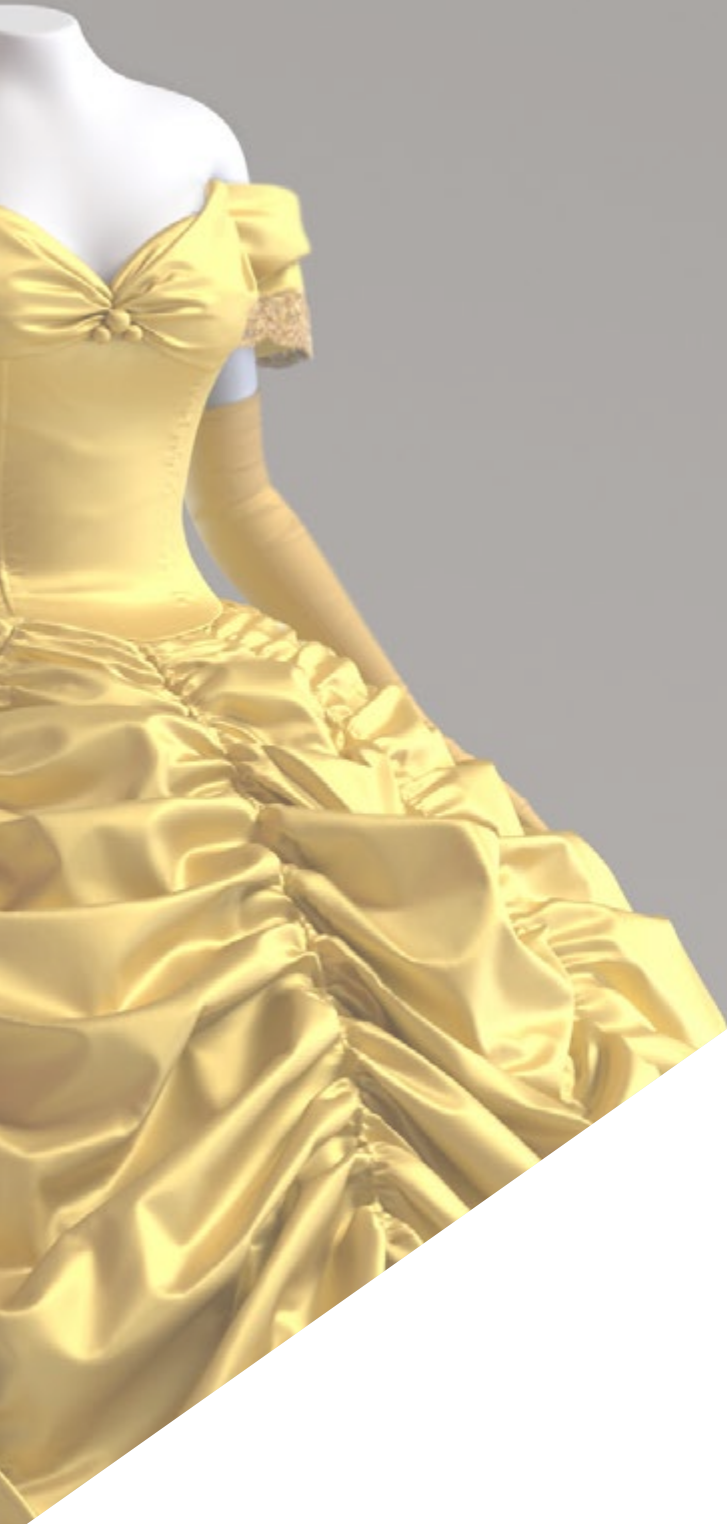


# 04

## Structure and Content

TECH uses cutting-edge educational methodology for the elaboration of all its titles, so this program has the key concepts that the student must know to properly manage the creation and simulation of clothing in 3 dimensions. Thanks to the audiovisual and practical support of the teaching, the student has a contextual understanding of the entire subject taught, learning in situ to create their own most spectacular dresses.





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*Invest on a quality professional change and enroll now for this TECH Postgraduate Certificate”*

## Module 1 Clothing Simulation

- 1.1. Importing your Model to Marvelous Designer and Program Interface
  - 1.1.1. Marvelous Designer
  - 1.1.2. Software Functionality
  - 1.1.3. Real-Time Simulations
- 1.2. Creation of Simple Patterns and Clothing Accessories
  - 1.2.1. Creations: T-shirts, Accessories, Hats and Pockets
  - 1.2.2. Fabric
  - 1.2.3. Patterns, Zippers and Seams
- 1.3. Advanced Clothing Creation: Complex Patterns
  - 1.3.1. Pattern Complexity
  - 1.3.2. Physical Qualities of Fabrics
  - 1.3.3. Complex Accessories
- 1.4. Clothing Simulation at Marvelous
  - 1.4.1. Animated Models at Marvelous
  - 1.4.2. Fabric Optimization
  - 1.4.3. Model Preparation
- 1.5. Export of Clothing from Marvelous Designer to ZBrush
  - 1.5.1. Low Poly in Maya
  - 1.5.2. UVs in Maya
  - 1.5.3. ZBrush, Use of Reconstruct Subdiv
- 1.6. Refinement of Clothing
  - 1.6.1. Workflow
  - 1.6.2. Details in ZBrush
  - 1.6.3. Clothing Brushes in ZBrush





- 1.7. Improve the Simulation with ZBrush
  - 1.7.1. From Tris to Quads
  - 1.7.2. UVs Maintenance
  - 1.7.3. Final Carving
- 1.8. High Detail Clothing Texturing in Mari
  - 1.8.1. Tileable Textures and Fabric Materials
  - 1.8.2. Baking
  - 1.8.3. Texturing in Mari
- 1.9. Maya Fabric Shading
  - 1.9.1. Shading
  - 1.9.2. Textures Created in Mari
  - 1.9.3. Realism with Arnold Shaders
- 1.10. Render
  - 1.10.1. Clothing Rendering
  - 1.10.2. Illumination in Clothing
  - 1.10.3. Texture Intensity

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*There will be no detail that you cannot recreate realistically: from the fine strands of more classic costumes to the aggressive carvings of cyberpunk”*

# 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.

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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

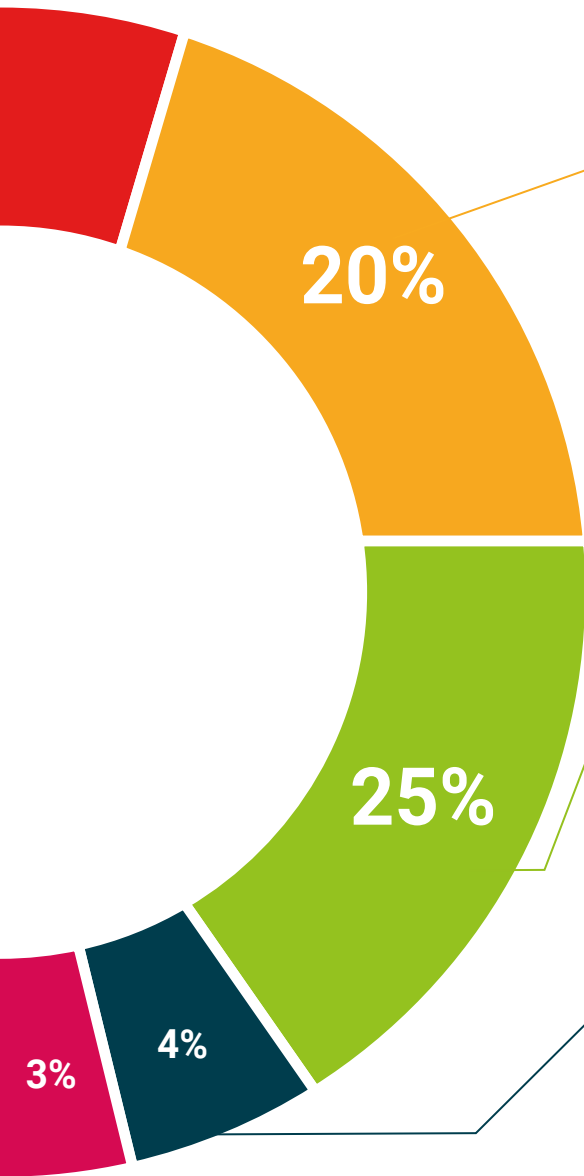
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### 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.



# 06 Certificate

The Postgraduate Certificate in 3D Clothing Simulation 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 Clothing Simulation** 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 Clothing Simulation**

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 quality  
development language  
virtual classroom



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