Advanced Master's Degree
Integral 3D Modeling

tech global university

Advanced Master's Degree
Integral 3D Modeling

- » Modality: **online**
- » Duration: **2 years**
- » Certificate: **TECH Global University**
- » Credits: **120 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/us/information-technology/advanced-master-degree/advanced-master-degree-integral-3d-modeling**

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01
Introduction

In a world in constant technological evolution, 3D Modeling is a highly valued skill in the workplace of computer science and design. That's why, the market calls for more and more specialized professionals in this field. In this sense, TECH has created a 100% online course that will lead students to enhance their skills and knowledge in areas such as texturing with Allegorithmic Substance Painter and Mari, 3D modeling with Graphite Tool, VRay-powered rendering in 3DS Max and technical modeling in Rhino, among others. All of the above with an accessible teaching material and a flexible pedagogy, fully compatible with the daily responsibilities of each graduate.
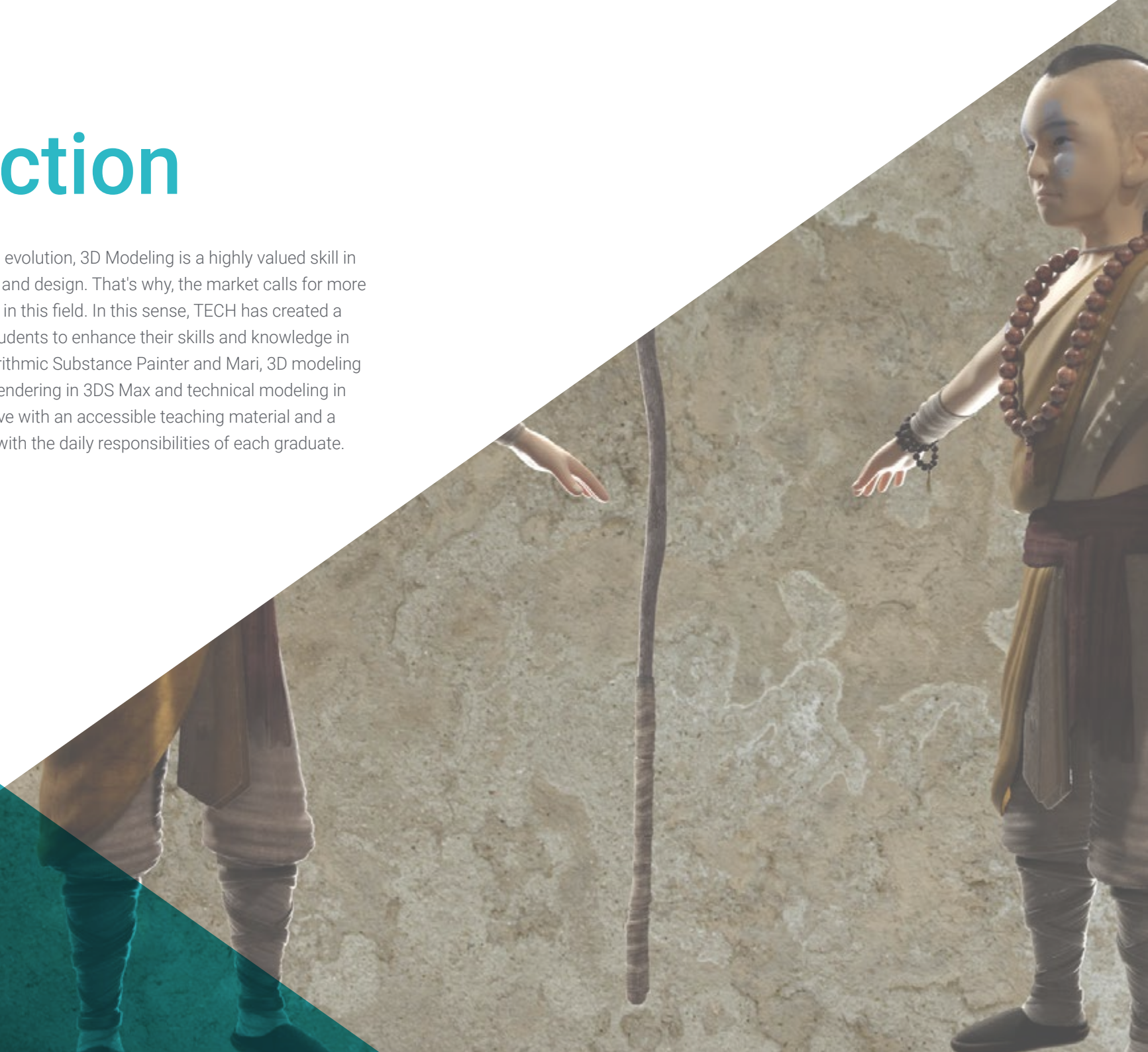
An Advanced Master's Degree in Integral 3D Modeling 100% online with 3,000 teaching hours of quality learning"

In an increasingly digital world, 3D Modeling has become a fundamental skill for any IT professional who wants to excel in the field of design. A creative process that allows the creation of objects and characters in three dimensions, offering more realistic and attractive productions for the public. A technique that is widely used in film production, advertising, video games, architecture or engineering.

In this scenario, computer scientists have a wide range of possibilities to grow in various sectors of great relevance before them. To promote this goal, TECH provides this Advanced Master's Degree in Integral 3D Modeling in a 100% online educational format and only 24 months long.

A program with a theoretical-practical approach, which will take students to delve into the key areas of organic modeling, texture modeling and hardsurface modeling. To do this, graduates will delve into the use of tools such as ZBrush, Substance Painter, Blender, 3DS Max, Unreal and Marmoset Toolbag. Likewise, students will have the opportunity to investigate specific topics, such as texturing with Allegorithmic Substance Painter and Mari, 3D modeling with Graphite Tool and UV preparation for UDIM systems focused on large production models.

All of the above with a system that allows the graduate to reduce the long hours study and memorization. With Relearning method, based on repetition of key content, the graduate will consolidate the main concepts in an agile way.

An excellent educational option for those who wish to improve in 3D Modeling and boost their career path through flexible teaching. The graduate only needs a digital device with an Internet connection to view the content of this avant-garde program at any time.

This **Advanced Master's Degree in Integral 3D Modeling** 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 3D Modeling
- The graphic, schematic, and practical contents with which they are created, that provide scientific and 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 innovative methodologies in 3D Modeling
- Theoretical lessons, questions for experts, discussion forums on controversial issues and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection

Get ready to become a comprehensive expert in 3D Modeling, using the latest techniques and tools in the industry"

"Develop your skills in organic, texture and hardsurface modeling with ZBrush, Substance Painter, Blender, 3DS Max, Unreal and Marmoset Toolbag"

Make the most of the flexibility and comfort of studying 100% online, adapting your studies to your pace and personal needs.

Apply this program's teachings in projects from various sectors, from television, design to engineering.

Its teaching staff includes professionals belonging to the field of 3D Modeling, who pour the experience of their work into this program as well as recognized 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 an immersive learning experience designed to prepare for real-life situations.

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

Objectives

This university program offers IT professionals the necessary learning to improve their skills and knowledge in the field of 3D modeling. Therefore, through the best teaching material, students will obtain the most advanced tools and techniques in organic, texture and hardsurface modeling, as well as the use of utilities such as ZBrush, Substance Painter, Blender, 3DS Max, Unreal or Marmoset Toolbag.

"

Acquire skills and knowledge directly applicable to the work environment, preparing you to access the best professional opportunities in the 3D Modeling sector"

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
- Know all the steps to create a professional 3D modeling in depth
- Know and understand how textures work and how they influence on the modeling in detail
- Master several programs focused on modeling, texturing and real time used today in the professional world
- Apply the knowledge acquired in solving modeling problems
- Know how to organize and control the time spent on a complete 3D modeling, learning to value their work for possible jobs
- Know the latest updates in the world of modeling and video games, learning from the most up-to-date and used tools of each program
- Expertly use the knowledge acquired to create your own projects and intelligently add them to your portfolio

- Develop the resources of each program to achieve the best effect for your modeling
- Be professionally qualified to organize adequate working time for a job
- Solve complex problems and make responsible decisions
- Learn in depth the different types of hardsurface modeling, the different concepts and features to apply them in the 3D modeling industry
- Delve into the theory of shape creation in order to develop Shape Masters
- Learn in detail the basics of 3D modeling in its different forms
- Generate designs for different industries and their application
- Be a technical expert and/or Artist in 3D modeling for Hard surface
- Know all the tools involved in the 3D modeling profession
- Acquire skills for the development of textures and FX of 3D models

Specific Objectives

Module 1. Anatomy

- Investigate both male and female human anatomy
- Develop the highly detailed human body
- Sculpt hyper-realistic faces

Module 2. Retopology and Maya Modeling

- Master the different professional sculpting techniques
- Create advanced full body and face retopology in Maya
- Delve into how to apply details using alphas and brushes in ZBrush

Module 3. Uvs and Texturing with Allegorithmic Substance Painter and Mari

- Study the most optimal form of 'UVs in Maya and UDIM systems
- Develop the knowledge to texture in Substance Painter for video games
- Knowledge of texturing in Mari for hyper-realistic models
- Learn how to create XYZ textures and displacement maps on our models
- Delve into the import of our textures in Maya

Module 4. Rendering, Lighting and Posing of Models

- Discover advanced lighting and photography concepts to sell models more efficiently
- Develop the learning of model posing by means of different techniques
- Delve into the development of a rig in Maya for the model's subsequent possible animation
- Observe the control and use of the rendering of the model, bringing out all its details

Module 5. Hair Creation for Video Games and Movies

- Delve into the advanced use of Xgen in Maya
- Create hair for movies
- Study hair using Cards for video games
- Develop your own hair textures
- See the different use of hairbrushes in ZBrush

Module 6. Clothing Simulation

- 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

Module 7. Stylized Characters

- Focus anatomical knowledge in simpler, cartoon-like forms
- Create a cartoon model from the base to the detail by applying what has been previously learned
- Review the techniques learned in the course in a different modeling style

Module 8. Creature Modeling

- Learn the modeling of different types of animal anatomy
- Review the different types of reptiles and how to create scales with Displacement maps and Alphas
- 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

Module 9. Blender: A New Twist in the Industry

- Outstanding software performance
- Transfer knowledge of Maya and Zbrush to Blender to create amazing models
- Delve into Blender's node system to create different shaders and materials
- Render the blender practice models with the two types of render engines Eevee and Cycles

Module 10. Creation of Organic Environments in Unreal Engine

- Study software functionality and project configuration
- Delve into the study of PST and the Storytelling of the scene to achieve a good design for our environment
- Learn the different terrain and organic modeling techniques, as well as the implementation of our own scanned models
- Delve into the vegetation creation system and how to control it perfectly in Unreal Engine
- Create different types of texturing of the project's parts, as well as shading and materials with their corresponding configurations
- Develop knowledge about the different types of lights, atmospheres, particles and fog, how to place different types of cameras and how to take pictures to have our composition in different ways

Module 11. 3D Modeling with 3ds Max

- In-depth knowledge of the functionality of the 3DS Max program
- Know in depth the program interface and its controls
- Transform the geometry to get the shape we want in the fastest and most efficient way
- Learn all the effects of the modifiers and learn how to combine them for greater effect
- Understand Boolean operations and know how to use them to our advantage
- Use 2D elements to combine them with our 3D to create shapes more efficiently

Module 12. Advanced 3D Modeling with 3DS Max

- Learn in depth two ways of editing and use them according to the type of modeling or objective
- Know all types of program editing to create any type of modeling proposed by the user
- Customize the program to use it in the fastest and most efficient way for each professional
- Know and use the most advanced tools of the program
- Get introduced to Plugins and Scripts to use them for the benefit of modeling

Module 13. 3D Modeling with Graphite Tool

- Know in detail the Graphite Tool, the most used by 3DS Max professionals
- Learn its interface and how to use it for a more professional result in less time
- Compare each tool with its counterpart in polygonal mode and learn about their benefits
- Know the tools you will use throughout the 3D modeling process and their optimization
- Find errors in 3D modeling and know how to solve them in the most intelligent way

Module 14. 3D Modeling with ZBrush

- Know in depth the ZBrush program, the most used in organic modeling in the market
- Optimize the model as you work on it, avoiding potential problems after refinement
- Understand each of the program's tools, knowing when to use each one and why
- Learn the Hard Surface tool, which allows inorganic modeling within the program
- Knowing different methods to perform organic modeling
- Learn everything you need to start a character or creature from scratch and see it through without any problems

Module 15. Texturing

- Know and understand all texture maps and their application to modeling
- Know the types of materials existing today and how they work in order to create one from scratch or modify an existing one
- Generate and understand mapping coordinates from a 3D model for further work on texturing
- Assign Object IDs to work more efficiently on textures
- Work models from high to low resolution and vice versa to further optimize the model while retaining the same levels of detail
- Create textures for the 3D model with different programs

Module 16. Substance Painter Texturing

- Know in depth the Substance Painter program, the most widely used for texturing in the world of video games today
- Understand the process of Baking from a high resolution model to a low resolution model
- Know and understand different layers of a material and how they affect it
- Create materials from scratch and modify existing materials to achieve a fully customized material
- Know how to work with mapping coordinates and masks to correctly apply textures to the model
- Learn about brushes, how to use them and how to create customized brushes
- Learn how to use the resources found in the program or externally to improve our textures
- Know different methods to create or modify textures

Module 17. Rendering

- Know in depth the materials and rendering tool of the Marmoset Toolbag program, widely used by 3D modelers and sculptors
- Understand how to position the lights to create a suitable ambient environment for our model
- Create and position cameras to achieve a perspective that makes our 3D modeling more interesting
- Export professional renderings
- Delve into the basics of camera animation to create an animated rendering for more effects
- Know the up-to-date tools of the programs
- Know how to perform basic rendering with other programs, such as IRay, Zbrush, Photoshop and Keyshot

Module 18. Rendering with VRay Engine in 3DS Max

- In-depth knowledge of the Vray engine assigned to the 3DS Max program
- Configure the rendering options to assign the desired rendering engine
- Know Vray's materials and work with them through nodes
- Migrate textures created in Substance Painter to Vray engine
- Set up the lighting of our Vray scene
- Give more details to our model without the need to change or add geometry
- Intelligently position our model and camera to create an interesting scene
- Perform static and animated renders of our model

Module 19. Characters

- Create a character or creature from scratch to render
- Learn tricks to work faster and more efficiently with ZBrush
- Have the knowledge to know when to use one method or another depending on of the situation
- Have a practical sculpting guide for certain elements that may become more complicated
- Troubleshooting throughout the entire course of a modeling
- Know specific methods to create various types of materials in a model
- Generate hair in different styles and with different programs depending on the style, from stylized/cartoon to hyperrealism
- Knowing how to pose the character, as well as the importance of dynamism and silhouette
- Include elements that increase the character's importance, such as accessories, props and the environment

Module 20. Exports to Unreal
- Handle the real-time Unreal Engine in such a way that it performs perfectly when working with a 3D model and its textures
- Understand the properties of Unreal materials
- Know how to work with and understand Unreal material nodes, giving effects to textures to achieve unique materials
- Correctly light an Unreal scene in a realistic way according to the desired ambience
- Configure Unreal Lightmaps, achieving better resolution and optimizing engine performance
- Perform basic post-processing for rendering with good visual effects

Module 21. Study of Figure and Shape
- Conceive and apply constructions of geometric figures
- Understand the basics of three-dimensional geometry
- Knowing in detail how it is represented in technical drawing
- Identify different mechanical components
- Apply transformations through symmetries
- Develop an understanding of how shapes are developed
- Work through shape analysis

Module 22. Hard Surface Modeling
- Understand in depth how to control the topology
- Develop function communication
- Have knowledge of the emergence of Hard Surface
- Have a detailed understanding of the different industries of its application
- Have a comprehensive understanding of the different types of modeling
- Possess valid information on the fields that make up modeling

Module 23. Technical Modeling in Rhino
- Broadly understand how Nurbs modeling software works
- Work with precision modeling systems
- Learn in detail how to execute commands
- Create the basis of geometries
- Edit and transform geometries
- Work with an organization in the scenes

Module 24. Modeling Techniques and their Application in Rhino
- Develop techniques for solving specific cases
- Apply solutions to different types of requirements
- Know the main software tools
- Incorporate mechanical knowledge into the modeling process
- Work with analysis tools
- Develop strategies to approach a model

Module 25. Advanced Modeling in Rhino
- Learn in depth about the application of techniques to advanced models
- Understand in detail how the component parts of an advanced model work.
- Work with different parts of a complex model
- Acquire skills to sort a complex model
- Identify how details are adjusted

Module 26. Polygonal Modeling in 3D Studio Max

- Possess extensive knowledge of using 3D Studio Max
- Work with custom settings
- Have an in-depth understanding of how mesh smoothing works
- Conceive geometries through a variety of methods
- Develop an understanding of how a mesh behaves
- Apply object transformation techniques
- Have knowledge of creating *UV* maps

Module 27. Advanced Polygonal Modeling in 3D Studio Max

- Apply all the techniques for specific product development
- In-depth understanding of component parts development
- Understand the topology of an aircraft in modeling in depth
- Apply knowledge of technical components
- Create complex shapes through the development of simple shapes
- Understand the physiognomy of a bot form

Module 28. Low Poly 3D Studio Max Modeling

- Working with basic shapes for mechanical models
- Develop the ability to decompose elements
- Understand in depth how detail makes for realism
- Solve different techniques to develop details
- Understand how mechanical parts are connected

Take a firm step in your professional aspirations in the field of film production. Enroll now in this unique TECH degree"

03
Skills

This Advanced Master's Degree focuses on perfecting Integral 3D Modeling techniques, which are essential for any computer professional wishing to prosper in this field. Therefore, you will increase your skills in texturing with Allegorithmic Substance Painter, character stylization with Substance Painter and ZBrush, 3D modeling with Graphite Tool, rendering with the VRay engine in 3DS Max, and technical modeling in Rhino, among others.
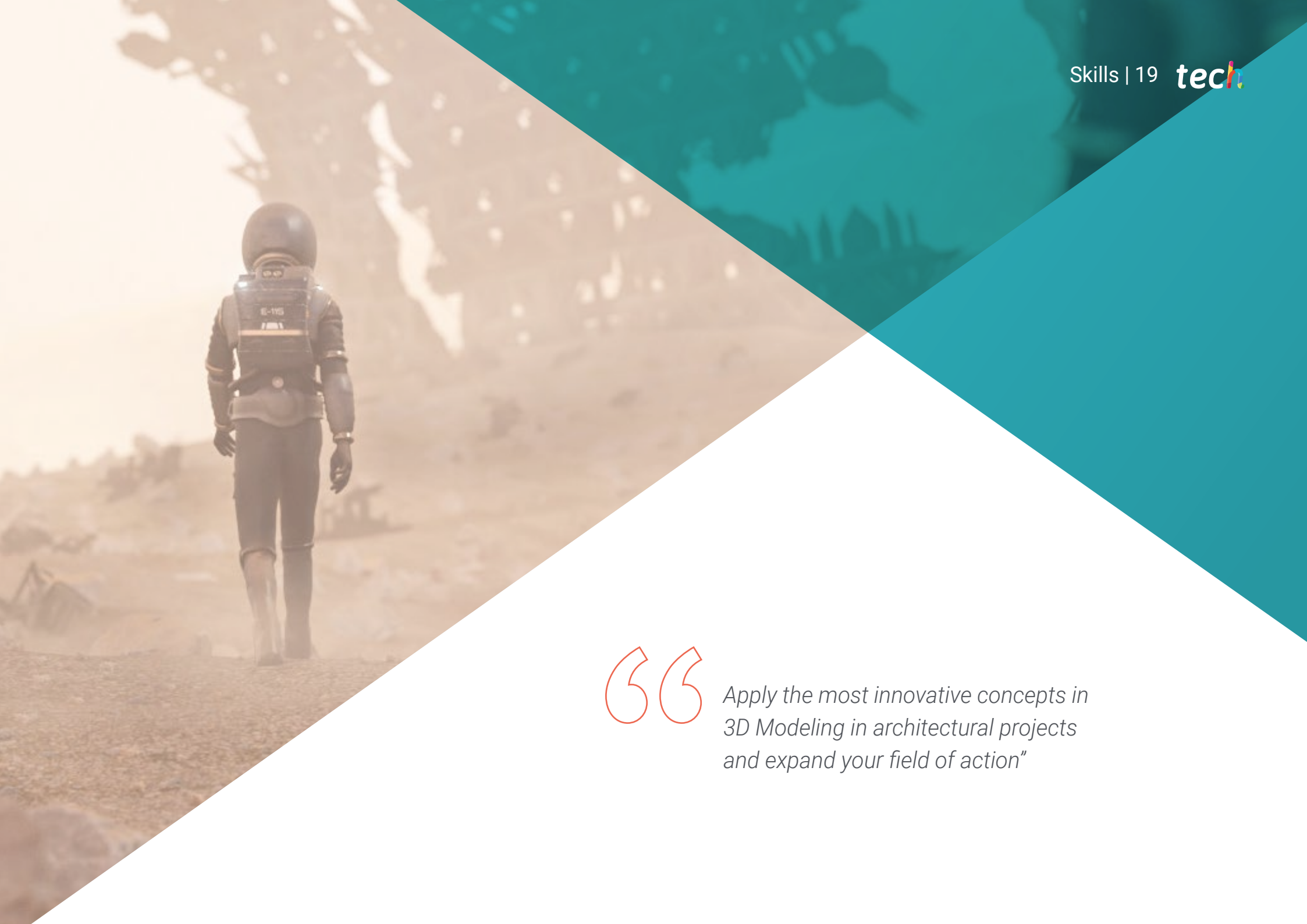
Apply the most innovative concepts in 3D Modeling in architectural projects and expand your field of action"

General Skills

- Create any kind of completely organic living being including its clothes and Props autonomously and with high quality

- Adapt to any type of workflow in the sector, using the most suitable one for each type of work

- Create the skeleton of a character using a Rig to test its functionality and correct errors

- Use the best and most widespread software in the industry in the field of 3D modeling and sculpting

- Master the necessary tools for creating textures from low-quality figures and vice versa

- Apply lighting knowledge to enhance the texture of the figure

- Mastery and management of editing and rendering techniques

- Know how to communicate ideas and develop projects in which you work

- Master the tools for the design of hard surfaces

- Apply knowledge appropriately to make 3D modelings

- Employ theory to create realistic shapes

- Generate new designs for any industry

- Master all the tools and programs of the profession
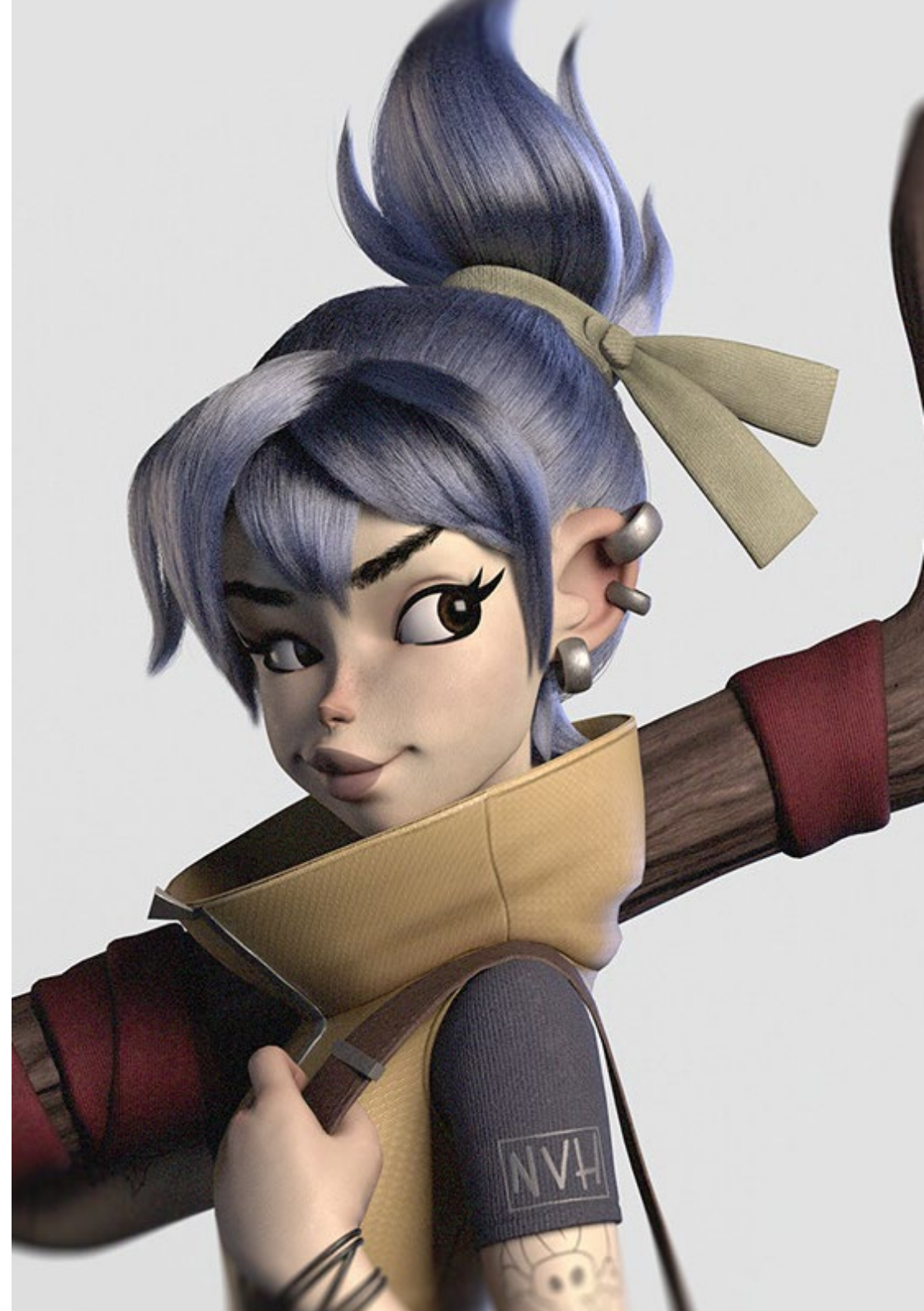
Specific Skills

- In-depth knowledge of the anatomy of the body, making the most of every detail
- Lay the artistic foundations to differentiate yourself from other designers
- Create great human models, both male and female
- Solve problems of other work departments
- Increase the professionalism of the student with cross-cutting competencies in rhetopology
- Understand the influence of a good topology at all levels of production
- Master Mari software, which is widely used in the film industry
- Knowledge of the standard in video game texturing through Substance
- Delve into the current demands of the film and video game industry to offer the best possible design solutions
- Mastering rendering to avoid models that look bad or do not meet required standards
- Required standards
- Present design models and portfolios in a professional manner
- Refine the composition of light, shape, color and pose of the models to enhance the work
- Know and meet the demands in hair creation for film and video games
- Create hair mastering different artistic styles
- Master the Marvelous Designer tool and its complex patterns
- Create realistic or cartoon characters in a versatile and plausible manner
- Know the anatomy of all types of creatures in order to represent them accurately
- Master Unreal Engine and Blender more effectively than most designers
- Be able to make realistic figures using 3DS Max programs, also using 2D elements to create more fluid shapes

- Seamless use of two or more forms of editing depending on the modeling objective
- Know shortcuts and plugins to use programs faster and more efficiently
- Perfectly manage the interface of programs such as Graphite Tool and identify possible errors to solve them intelligently
- Be able to seamlessly use the ZBrush program to create textures and organic modeling from scratch
- Dive deeply into Substance Painter for creating materials from scratch, using brushes and layers for clean textures
- Be able to properly set up lighting in ZBrush to generate hair
- Be able to properly set up lighting in ZBrush to generate hair in different styles and hyperrealism
- Master rendering to avoid models that look bad or do not comply the required standards
- Develop the necessary skills to use different techniques for maximum modeling
- Being able to create realistic surfaces using different software polygonal modeling
- Seamless use of two or more forms of editing depending on the modeling objective
- Perfectly master the Low Poly 3D Studio Max interface to simplify the mechanical components of any object
- Be able to perfectly use Hardsurface parameters to create characters with Sculpt modeling
- Be able to carry out a texturing project using different variations of PBR materials
- Extrapolate basic shapes to create realistic mechanical models

04
Course Management

TECH has selected a teaching team of active professionals who are up to date with the latest innovations in 3D Modeling to guide the student's entire learning process. These specialized teachers will transmit all the necessary knowledge for students to progress in this area of design, so that they can apply everything they have learned directly to their work. For this reason, the Advanced Master's Degree is the best option to specialize in 3D Modeling, since it specifically prepares students to access the best professional opportunities with a highly qualified faculty.

Learn from active 3D Modeling professionals, who will bring you the latest news in the field and will guide you in your educational progress"

Management

Ms. Gómez Sanz, Carla

* 3D Animation Specialist
* Concept Artist, 3D Modeler and Shading in Timeless Games Inc
* Vignettes and animations design consultant for commercial proposals in Spanish multinationals
* 3D Specialist at Blue Pixel 3D
* Higher Technician in 3D Animation, Videogames and Interactive Environments at CEV Superior School of Communication, Image and sounds
* 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

Ms. Sanches Lalaguna, Ana

* 3D Artist for videogames
* Generalista 3D at NeuroDigital Technologies
* 3D Designer at Lalaguna Studio
* Freelance Video Game Figure Modeler
* Junior Videogame Artist at InBreak Studios
* Master's Degree in Videogame Art and Design at U-tad
* Diploma in 2D and 3D Animation Filmmaking at ESDIP

Professors

Mr. Salvo Bustos, Gabriel Agustín

- Industrial designer andexpert in design and three-dimensional modeling
- CEO atD-Save 3D Services
- 3D Artist at 3D Visualization Service Inc
- Product Designer In Craftsmen Essence
- Film and video editor at Digital Film
- Industrial Designer, Specializing in Products, National University of Cuyo, Argentina
- Digital Composition Seminar, National University of Cuyo, Argentina

05
Structure and Content

The study plan of this Advanced Master's Degree has been meticulously prepared by highly prestigious experts In this way, students have the assurance of accessing the best knowledge in the field of 3D Modeling, since the program incorporates the latest developments in areas such as the principles of hardsurface, modeling, advanced modeling in Rhino, Retopology and modeling in Maya, or UV preparation for UDIM systems focused on large production models, among others.

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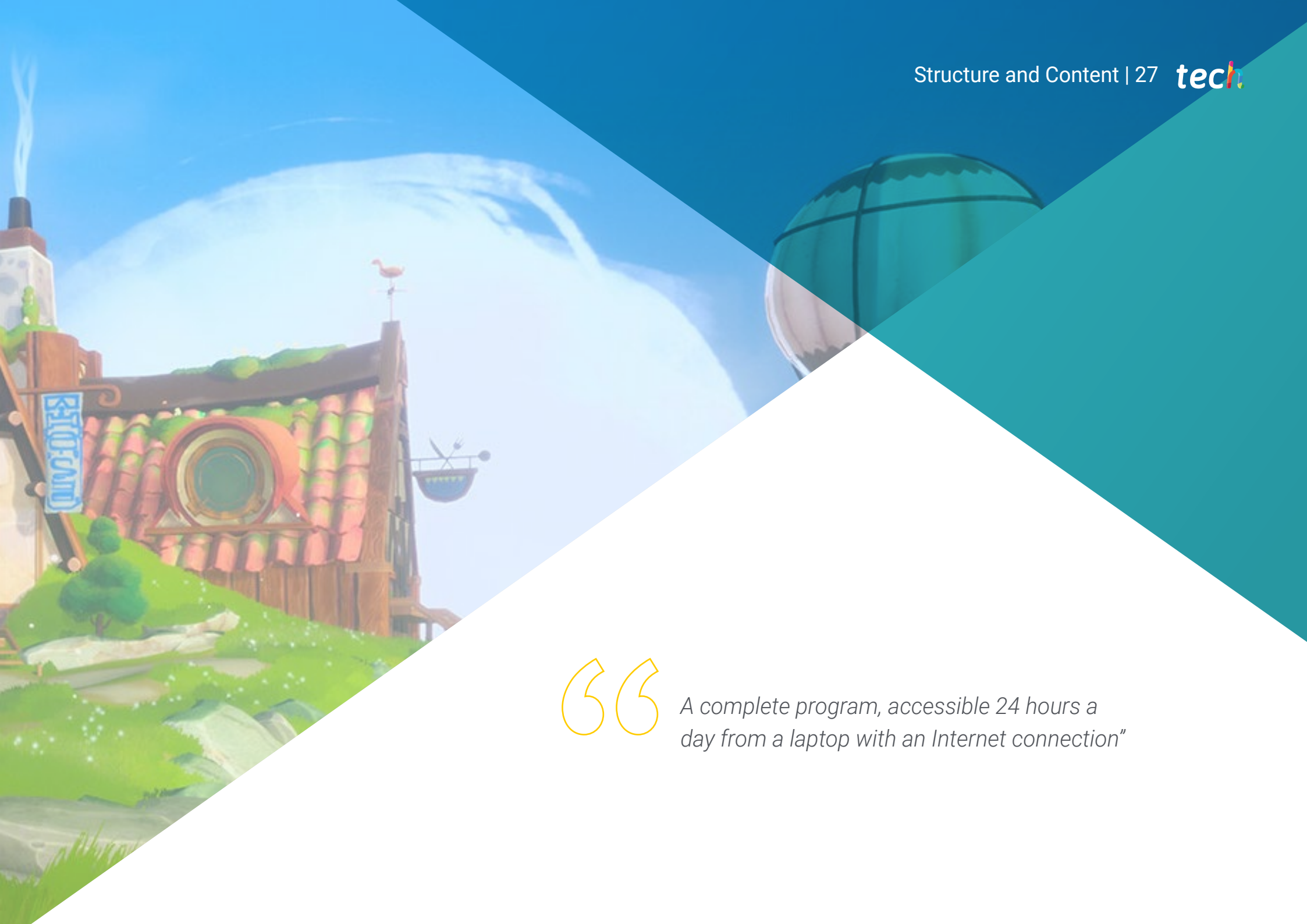
A complete program, accessible 24 hours a day from a laptop with an Internet connection"

Module 1. Anatomy

1.1. General Skeletal Masses, Proportions
- 1.1.1. Bones
- 1.1.2. The Human Face
- 1.1.3. Anatomical Canons

1.2. Anatomical Differences between Genders and Sizes
- 1.2.1. Shapes Applied to Characters
- 1.2.2. Curves and Straight Lines
- 1.2.3. Behavior of Bones, Muscles and Skin

1.3. The Head
- 1.3.1. The Skull
- 1.3.2. Muscles of the Head
- 1.3.3. Layers: Skin, Bone and Muscle Facial Expressions

1.4. The Torso
- 1.4.1. Torso Musculature
- 1.4.2. Central Axis of the Body
- 1.4.3. Different Torsos

1.5. The Arms
- 1.5.1. Joints: Shoulder, Elbow and Wrist
- 1.5.2. Arm Muscle Behavior
- 1.5.3. Detail of the Skin

1.6. Hand Sculpting
- 1.6.1. Hand Bones
- 1.6.2. Hand Muscles and Tendons
- 1.6.3. Hand Skin and Wrinkles

1.7. Leg Sculpting
- 1.7.1. Joints: Hip, Knee and Ankle
- 1.7.2. Muscles of the Leg
- 1.7.3. Skin Details

1.8. The Feet
- 1.8.1. Bone Construction for the Foot
- 1.8.2. Foot Muscles and Tendons
- 1.8.3. Foot Skin and Wrinkles

1.9. Whole Human Figure Composition
- 1.9.1. Complete Creation of a Human Base
- 1.9.2. Joint and Muscle Attachment
- 1.9.3. Skin Composition, Pores and Wrinkles

1.10. Complete Human Model
- 1.10.1. Model Polishing
- 1.10.2. Hyper Skin Detail
- 1.10.3. Composition

Module 2. Retopology and Maya Modeling

2.1. Advanced Facial Retopology
- 2.1.1. Importing into Maya and the Use of Quad Draw
- 2.1.2. Retopology of the Human Face
- 2.1.3. Loops

2.2. Human Body Retopology
- 2.2.1. Creation of Loops in the Joints
- 2.2.2. Ngons and Tris and When to Use Them
- 2.2.3. Topology Refinement

2.3. Retopology of Hands and Feet
- 2.3.1. Movement of Small Joints
- 2.3.2. Loops and Support Edges to Improve the Base Mesh of Feet and Hands
- 2.3.3. Difference of Loops for Different Hands and Feet

2.4. Differences Between Maya Modeling vs. ZBrush Sculpting
- 2.4.1. Different Workflows for Modeling
- 2.4.2. Low Poly Base Model
- 2.4.3. High Poly Model

Module 3. UVs and Texturing with Allegorithmic Substance Painter and Mari

3.1. Creation of High-Level UVs in Maya
    3.1.1. Facial UVs
    3.1.2. Creation and Layout
    3.1.3. Advanced UV´s
3.2. UV Preparation for UDIM Systems Focused on High Throughput Models
    3.2.1. UDIM
    3.2.2. UDIM in Maya
    3.2.3. Textures in 4K
3.3. XYZ Textures: What They Are and How to Use Them
    3.3.1. XYZ. Hyperrealism
    3.3.2. MultiChannel Maps
    3.3.3. Texture Maps
3.4. Texturing: Video Games and Film
    3.4.1. Substance Painter
    3.4.2. Mari
    3.4.3. Types of Texturing
3.5. Texturing in Substance Painter for Videogames
    3.5.1. Baking from High to Low Poly
    3.5.2. PBR Textures and Their Importance
    3.5.3. ZBrush with Substance Painter
3.6. Finalizing our Substance Painter Textures
    3.6.1. Scattering, Translucency
    3.6.2. Model Texturing
    3.6.3. Scars, Freckles, Tattoos, Paints or Makeup
3.7. Hyper-Realistic Facial Texturing with XYZ Textures and Color Mapping
    3.7.1. XYZ Textures in ZBrush
    3.7.2. Wrap
    3.7.3. Correction of Errors
3.8. Hyper-Realistic Facial Texturing with XYZ Textures and Color Mapping
    3.8.1. Mari's Interface
    3.8.2. Texturing in Mari
    3.8.3. Projection of Skin Textures

3.9. Advanced Detailing of Displacements Maps in Zbrush and Mari
    3.9.1. Texture Painting
    3.9.2. Displacement for Hyperrealism
    3.9.3. Creation of Layers
3.10. Shading and Texture Implementation in Maya
    3.10.1. Skin Shaders in Arnold
    3.10.2. Hyper-realistic Eye
    3.10.3. Touch-ups and Tips

Module 4. Rendering, Lighting and Posing of Models

4.1. Characters Posing in ZBrush
    4.1.1. Rig in zbrush with ZSpheres
    4.1.2. Transpose Master
    4.1.3. Professional Finish
4.2. Rigging and Weighting of our Own Skeleton in Maya
    4.2.1. Rig in Maya
    4.2.2. Rigging Tools with Advanced Skeleton
    4.2.3. Rig Weighting
4.3. Blend Shapes to Give Life to Your Character's Face
    4.3.1. Facial Expressions
    4.3.2. Blend Shapes of Maya
    4.3.3. Animation with Maya
4.4. Mixamo, a Quick Way to Present Our Model
    4.4.1. Mixamo
    4.4.2. Mixamo Rigs
    4.4.3. Animations
4.5. Lighting Concepts
    4.5.1. Lighting Techniques
    4.5.2. Light and Color
    4.5.3. Shade

Module 6. Clothing Simulation

6.1. Importing your Model to Marvelous Designer and Program Interface
- 6.1.1. Marvelous Designer
- 6.1.2. Software Functionality
- 6.1.3. Real-Time Simulations

6.2. Creation of Simple Patterns and Clothing Accessories
- 6.2.1. Creations: T-shirts, Accessories, Hats and Pockets
- 6.2.2. Fabric
- 6.2.3. Patterns, Zippers and Seams

6.3. Creation of Advanced Clothes Complex Patterns
- 6.3.1. Pattern Complexity
- 6.3.2. Physical Qualities of Fabrics
- 6.3.3. Complex Accessories

6.4. Clothing Simulation at Marvelous
- 6.4.1. Animated Models at Marvelous
- 6.4.2. Fabric Optimization
- 6.4.3. Model Preparation

6.5. Export of Clothing from Marvelous Designer to ZBrush
- 6.5.1. Low Poly in Maya
- 6.5.2. UV in Maya
- 6.5.3. Zbrush, Use of Reconstruct Subdiv

6.6. Refinement of Clothing
- 6.6.1. Workflow
- 6.6.2. Details in Zbrush
- 6.6.3. Clothing Brushes in Zbrush

6.7. Improve the Simulation with ZBrush
- 6.7.1. From Tris to Quads
- 6.7.2. UV's Maintenance
- 6.7.3. Final Carving

6.8. High Detail Clothing Texturing in Mari
- 6.8.1. Tileable Textures and Fabric Materials
- 6.8.2. Baking
- 6.8.3. Texturing in Mari

6.9. Maya Fabric Shading
- 6.9.1. Shading
- 6.9.2. Textures Created in Mari
- 6.9.3. Realism with Arnold Shaders

6.10. Render
- 6.10.1. Clothing Rendering
- 6.10.2. Illumination in Clothing
- 6.10.3. Texture Intensity

Module 7. Stylized Characters

7.1. Choice of a Stylized Character and Blocking of Base Forms
- 7.1.1. References and Concept Arts
- 7.1.2. Base Forms
- 7.1.3. Deformities and Fantastic Shapes

7.2. Conversion of our Low Poly to High Poly model: Head, Hair and Face Sculpting
- 7.2.1. Head Blocking
- 7.2.2. New Hair Creation Techniques
- 7.2.3. Improvements

7.3. Model Refinement: Hands and Feet
- 7.3.1. Advanced Sculpting
- 7.3.2. Refinement of General Shapes
- 7.3.3. Shape Cleaning and Smoothing

7.4. Creation of Jaw and Teeth
- 7.4.1. Creation of Human Teeth
- 7.4.2. Increase its Polygons
- 7.4.3. Fine Detailing of Teeth in ZBrush

7.5. Modeling Clothing and Accessories
- 7.5.1. Types of Cartoon Clothing
- 7.5.2. Zmodeler
- 7.5.3. Applied Maya Modeling

Module 9. Blender: A New Twist in the Industry

9.1. Blender VS Zbrush
    9.1.1. Advantages and Differences
    9.1.2. Blender and the 3D Art Industry
    9.1.3. Advantages and Disadvantages of Freeware

9.2. Blender Interface and Program Knowledge
    9.2.1. Interface
    9.2.2. Customization
    9.2.3. Experimentation

9.3. Head Sculpting and Transpolation of Controls from ZBrush to Blender
    9.3.1. The Human Face
    9.3.2. 3D Sculpting
    9.3.3. Blender Brushes

9.4. Full Body Sculpting
    9.4.1. The Human Body
    9.4.2. Advanced Techniques
    9.4.3. Detail and Refinement

9.5. Retopology and UV in Blender
    9.5.1. Retopology
    9.5.2. University of Valencia
    9.5.3. Blender UDIMs

9.6. From Maya to Blender
    9.6.1. Hard Surface
    9.6.2. Modifiers
    9.6.3. Keyboard Shortcuts

9.7. Blender Tips & Tricks
    9.7.1. Range of Possibilities
    9.7.2. Geometry Nodes
    9.7.3. Workflow

9.8. Nodes in Blender: Shading and Texture Placement
    9.8.1. Nodal System
    9.8.2. Shaders Through Nodes
    9.8.3. Textures and Materials

11.4. Parametric Modifiers

    11.4.1. Bend, Taper, Skew and Twist

    11.4.2. Stretch and Squeeze

    11.4.3. Ripple, Wave and Noise

    11.4.4. Spherify, Lattice and Mirror

    11.4.5. Push and Relax

    11.4.6. Slice, Shell and CapHoles

11.5. Free Deformation Modifiers

    11.5.1. FFD Modifiers

    11.5.2. FFD Cyl

    11.5.3. FFD Box

11.6. Composition Objects

    11.6.1. Boolean Operations Boolean and ProBoolean

    11.6.2. Objects Dispersion Scatter

    11.6.3. Morphism Morph

11.7. 2D Shapes Splines

    11.7.1. Splines and its Options

    11.7.2. The Line and Vertex Types

    11.7.3. Vertex, Segment and Splines Subobjects

11.8. 2D Shapes Advanced Splines

    11.8.1. Editable Splines and use of Grid and Snap to Create 2D Shapes

    11.8.2. Parametric Modifiers, FFD and Booleans with Splines

    11.8.3. Extended Splines and Section

11.9. Modifiers of splines

    11.9.1. Extrude

    11.9.2. Bevel

    11.9.3. Sweep

    11.9.4. Lathe

11.10. Composition Objects Splines

    11.10.1. Loft

    11.10.2. Terrain

    11.10.3. Shape Merge

Module 12. Advanced 3D Modeling with 3DS Max

12.1. Mesh Editing Polygonal Editing

    12.1.1. Polygonal Editing EditablePoly and EditPoly

    12.1.2. Panels, Selection and Flexible Selection

    12.1.3. TurboSmooth, MeshSmooth and HSDS Modifier

12.2. Mesh Editing Geometry

    12.2.1. Vertex, Edge and Edge Editing

    12.2.2. Polygon, Element and Geometry Editing

    12.2.3. Geometry Cutting Planes and Added Resolution

12.3. Mesh Editing Selection Groups

    12.3.1. Geometry Alignment and Visibility

    12.3.2. Selection Sub- material and Smoothing Groups

    12.3.3. Surface Subdivision and Vertex Painting

12.4. Mesh Editing Surface

    12.4.1. Geometry Displacement and Deformation Brush

    12.4.2. Modo Plano and EditableMesh

    12.4.3. Splines + Surface

12.5. Advanced Mesh Editing

    12.5.1. EditablePatch

    12.5.2. Model Sheet and Setup for Modeling

    12.5.3. Symmetry Tracing and Symmetry

12.6. User Customization

    12.6.1. Display Floater Tool and Panel Display

    12.6.2. Object Properties and Preferences

    12.6.3. Personalization IU Shortcuts, Menus and Colors

    12.6.4. Viewer Configuration

12.7. Object Distribution

    12.7.1. Orthographic View

    12.7.2. Spacing Tool and SnapShot

    12.7.3. Cloning and Alignment Tool

    12.7.4. Matrices. Array

Module 14. 3D Modeling with ZBrush

14.1. ZBrush
    14.1.1. Interface and Basic Controls
    14.1.2. Subtools, Symmetry, Transpose and Deformation
    14.1.3. Brushes and Alphas

14.2. Main Tools
    14.2.1. Masks and Polygroups
    14.2.2. Subdivisions, Dynamesh y ZRemesher
    14.2.3. Modify Topology, Matcaps y BPR

14.3. Modification Tools
    14.3.1. Insert Multi Mesh
    14.3.2. Layers and Morph Target
    14.3.3. Projections and Extract

14.4. Advanced Tools
    14.4.1. Crease and Bevel
    14.4.2. Surface and Shadowbox
    14.4.3. Decimation Master

14.5. ZSpheres and Adaptive Skin
    14.5.1. ZSpheres Controls
    14.5.2. ZSketch
    14.5.3. Adaptive Skin

14.6. Dynamesh and Advanced ZRemesher
    14.6.1. Booleans
    14.6.2. Brushes
    14.6.3. ZRemesher Using Guides

14.7. Curve Brushes
    14.7.1. Controls and Modifiers
    14.7.2. Curve Surface and Other Brushes
    14.7.3. Creating Brushes with Curve

14.8. Hard Surface
    14.8.1. Segments with Masks
    14.8.2. PolyGroupIt
    14.8.3. Panel Loops
    14.8.4. ZModeler
    14.8.5. Primitives

14.9. Modifiers
    14.9.1. Extender and Multi Slice
    14.9.2. Deformer and Blend Twist
    14.9.3. Taper and Flatten
    14.9.4. Bend Arc and Bend Curve

14.10. Transpose Master
    14.10.1. Posing a Character with Transpose Master
    14.10.2. Corregir detalles
    14.10.3. Prepare Character for Rendering

Module 15. Texturing

15.1. Texturing
    15.1.1. Baking
    15.1.2. PBR. Physycally Based Rendering
    15.1.3. Basic and Compound Texturing
    15.1.4. Tileable Textures

15.2. Mapping Coordinates University of Valencia
    15.2.1. Unwrap and Seams
    15.2.2. UvWs Editor
    15.2.3. Editor Options

15.3. Object ID
    15.3.1. ID Assignment and Functionality
    15.3.2. Multi-Subject Material
    15.3.3. Application of Materials as Instances

15.4. HighPoly and Normal Baking in 3DS Max
    15.4.1. HighPoly and LowPoly
    15.4.2. Projection Settings for Normal Map Baking
    15.4.3. Normal Map Texture Baking
    15.4.4. Normal Map

15.5. Baking of Other Materials in 3DS Max
    15.5.1. Application and Baking Diffuse Map
    15.5.2. Composite Materials
    15.5.3. Mask Adjustment

Module 17. Rendering

17.1.   Marmoset Toolbag
    17.1.1.   Geometry Preparation and FBX Formatting
    17.1.2.   Basic Concepts. Importance of Geometry
    17.1.3.   Links and Materials
17.2.   Marmoset Toolbag Sky
    17.2.1.   Environmental Setting
    17.2.2.   Lighting Points
    17.2.3.   Lights outside Sky
17.3.   Marmoset Toolbag Details
    17.3.1.   Shade and Pose
    17.3.2.   Procedural Materials
    17.3.3.   Channels and Reflection
17.4.   Real-Time Rendering with Marmoset Toolbag
    17.4.1.   Image Export with Transparency
    17.4.2.   Interactive Export Marmoset Viewer
    17.4.3.   Film Export
17.5.   Marmoset Toolbag Animated Cameras
    17.5.1.   Model Preparation
    17.5.2.   Cameras
    17.5.3.   Main Camera Interactive Animation
17.6.   Marmoset Toolbag Advanced Animated Cameras
    17.6.1.   Adding New Cameras
    17.6.2.   Parametric Animation
    17.6.3.   Final Details
17.7.   Marmoset Toolbag 4 Raytrace
    17.7.1.   Subsurface
    17.7.2.   Ray Tracing
    17.7.3.   Adding Cameras and Map Rendering
17.8.   Substance Painter Rendering IRay
    17.8.1.   IRay Settings
    17.8.2.   Viewer Settings
    17.8.3.   Display Settings
17.9.   Rendering with ZBRush
    17.9.1.   Material Settings
    17.9.2.   BPR Render and Lights
    17.9.3.   BPR Masks and Final Rendering in Photoshop
17.10. Keyshot Rendering
    17.10.1. From Zbrush to Keyshot
    17.10.2. Materials and Lighting
    17.10.3. Photoshop Compositing and Final Image

Module 18. Rendering with VRay Engine in 3DS Max

18.1.   VRay Render Engine Assignment
    18.1.1.   Preparation of the Rendering Space
    18.1.2.   Render Setup Options and Assign Render
    18.1.3.   Optimize Rendering Time
18.2.   Lighting and Light Creation
    18.2.1.   3-Point Lighting
    18.2.2.   Light Setup
    18.2.3.   Render Region
18.3.   Creation and Application of Materials
    18.3.1.   VRay Materials
    18.3.2.   VRay Materials Settings
    18.3.3.   Self-Illumination
18.4.   From Substance Painter to VRay
    18.4.1.   Connect Nodes and Material Settings
    18.4.2.   Export Presets
    18.4.3.   Set Up Smart Material in VRay
18.5.   Details and Positioning in the Scene
    18.5.1.   Application of Shades According to the Position of the Model
    18.5.2.   Adjust Model and Silhouette
    18.5.3.   Metallic Base
18.6.   Surface Rounding
    18.6.1.   VRayEdgeTex
    18.6.2.   Functionality and Setup
    18.6.3.   Rendering With and Without Rounding

Module 19. Characters

Module 20. Exports to Unreal

20.1. Unreal Engine
    20.1.1. Game Exporter
    20.1.2. Create New Project and Controls
    20.1.3. Importing Models into Unreal
20.2. Basic Properties of Materials
    20.2.1. Create Materials and Nodes
    20.2.2. Constant and Its Values
    20.2.3. Texture Sample
20.3. Common Material Nodes
    20.3.1. Multiply
    20.3.2. Texture Coordinate
    20.3.3. Add
    20.3.4. Fresnel
    20.3.5. Panner
20.4. Materials and Bloom
    20.4.1. Linear Interpolate
    20.4.2. Power
    20.4.3. Clamp
20.5. Textures to Modify the Material
    20.5.1. Masks
    20.5.2. Transparent Textures
    20.5.3. Match Color
20.6. Basic Lighting
    20.6.1. Light Source
    20.6.2. Skylight
    20.6.3. Fog
20.7. Fill and Creative Lighting
    20.7.1. Point Light
    20.7.2. Spot Light y Rect Light
    20.7.3. Objects as Light Sources
20.8. Night Lighting
    20.8.1. Light Source Properties
    20.8.2. Fog Properties
    20.8.3. Skylight Properties
20.9. Lightmaps
    20.9.1. Viewer Modes. Lightmap Density
    20.9.2. Improving Lightmaps Resolution
    20.9.3. Lightmass Importance Volume
20.10. Rendering
    20.10.1. Cameras and Their Parameters
    20.10.2. Basic Post-Processing
    20.10.3. High Resolution Screenshot

Module 21. Study of Figure and Shape

21.1. The Geometric Figure
    21.1.1. Types of Geometrical Figures
    21.1.2. Basic Geometric Constructions
    21.1.3. Geometric Transformations on the Plane
21.2. Polygons
    21.2.1. Triangles
    21.2.2. Quadrilaterals
    21.2.3. Regular Polygons
21.3. Axonometric System
    21.3.1. System Fundamentals
    21.3.2. Types of Orthogonal Axonometry
    21.3.3. Sketches
21.4. Three-Dimensional Drawing
    21.4.1. Perspective and Third Dimension
    21.4.2. Essential Elements of Drawing
    21.4.3. Perspectives
21.5. Technical Drawing
    21.5.1. Basic Notions
    21.5.2. Disposition of Views
    21.5.3. Cuts
21.6. Fundamentals of Mechanical Elements I
    21.6.1. Axis
    21.6.2. Joints and Bolts
    21.6.3. Springs

Module 22. Hardsurface Modeling

Module 23. Technical Modeling in Rhino

23.1. Rhino Modeling
23.1.1. Rhino Interface
23.1.2. Types of Objects
23.1.3. Navigating the Model
23.2. Fundamental Notions
23.2.1. Editing with Gumball
23.2.2. Viewports
23.2.3. Modeling Support
23.3. Precision Modeling
23.3.1. Input by Coordinates
23.3.2. Distance and Angle Restriction Input
23.3.3. Object Restriction
23.4. Command Analysis
23.4.1. Additional Modeling Support
23.4.2. SmartTrack
23.4.3. Construction Planes
23.5. Lines and Polylines
23.5.1. Circles
23.5.2. Free-Form Lines
23.5.3. Helix and Spiral
23.6. Geometry Editing
23.6.1. Fillet and Chamfer
23.6.2. Mixture of Curves
23.6.3. Loft
23.7. Transformations I
23.7.1. Move - Rotate– Scale
23.7.2. Join– Prune - Extend
23.7.3. Separate - Offset - Formations
23.8. Creating Shapes
23.8.1. Deformable Shapes
23.8.2. Modeling With Solids
23.8.3. Transformation of Solids

23.9. Creating Surfaces
23.9.1. Simple Surfaces
23.9.2. Extrusion, Lofting and Surface Revolution
23.9.3. Surface Sweeping
23.10. Organisation
23.10.1. Layers
23.10.2. Groups
23.10.3. Blocks

Module 24. Modeling Techniques and their Application in Rhino

24.1. Techniques
24.1.1. Support Intersection
24.1.2. Creation of a Space Helmet
24.1.3. Pipelines
24.2. Application I
24.2.1. Creating a Car Tire
24.2.2. Creating a Tire
24.2.3. Modeling a Watch
24.3. Basic Techniques II
24.3.1. Use of Isocurves and Edges for Modeling
24.3.2. Making Apertures in the Geometry
24.3.3. Working with Hinges
24.4. Application II
24.4.1. Creation of a Turbine
24.4.2. Creation of Air Inlets
24.4.3. Tips for Imitating Edge Thickness
24.5. Data Science
24.5.1. Tips for Using Mirror Symmetry
24.5.2. Use of Fillets
24.5.3. Use of Trims
24.6. Mechanical Applications
24.6.1. Gear Creation
24.6.2. Pulley Construction
24.6.3. Construction of a Shock Absorber

Module 25. Advanced Modeling in Rhino

Module 26. Polygonal Modeling in 3D Studio Max

26.1. Reference Modeling

    26.1.1. Reference Image Creation

    26.1.2. Hard Surface Smoothing

    26.1.3. Scene Organization

26.2. High Resolution Meshing

    26.2.1. Basic Smoothed Modeling and Smoothing Groups

    26.2.2. Modeling with Extrusions and Bevels

    26.2.3. Using the Turbosmooth Modifier

26.3. Spline Modeling

    26.3.1. Modifying Curvatures

    26.3.2. Configuring Polygon Faces

    26.3.3. Extruding and Spherizing

26.4. Creating Complex Shapes

    26.4.1. Setting Up Components and Work Grid

    26.4.2. Duplicating and Welding Components

    26.4.3. Cleaning Polygons and Smoothing

26.5. Modeling With Edge Cuts

    26.5.1. Creating and Positioning the Template

    26.5.2. Making Cuts and Cleaning Topology

    26.5.3. Extruding Shapes and Creating Folds

26.6. Modeling from Low Poly Model

    26.6.1. Starting with the Basic Shape and Adding Chamfers

    26.6.2. Adding Subdivisions and Generating Edges

    26.6.3. Cutting, Welding and Detailing

26.7. Edit Poly I Modifier

    26.7.1. Workflows

    26.7.2. Interface

    26.7.3. Sub Objects

26.8. Creating Compounds Objects

    26.8.1. Morph, Scatter, Conform and Connect Compound Objects

    26.8.2. BlobMesh, Shape Merge and Boolean Compound Objects

    26.8.3. Loft, Mesher and Proboolean Compound Objects

26.9. Techniques and Strategies to Create UVs

    26.9.1. Simple Geometries and Arc-Like Geometries

    26.9.2. Hard Surfaces

    26.9.3. Examples and Applications

Module 27. Advanced Polygonal Modeling in 3D Studio MAX

27.1. Sci-FI spacecraft Modeling

    27.1.1. Creating our Workspace

    27.1.2. Starting with the Main Body

    27.1.3. Configuration for the Wings

27.2. The Cabin

    27.2.1. Development of the Cabin Area

    27.2.2. Modeling the Control Panel

    27.2.3. Adding Details

27.3. The Fuselage

    27.3.1. Defining Components

    27.3.2. Adjusting Minor Components

    27.3.3. Developing the Underbody Panel

27.4. The Wings

    27.4.1. Creation of the Main Wings

    27.4.2. Incorporation of the Tail

    27.4.3. Adding Inserts for the Ailerons

27.5. Main Body

    27.5.1. Separation of Parts into Components

    27.5.2. Creating Additional Panels

    27.5.3. Incorporating the Spring Doors

27.6. The Engines

    27.6.1. Creating the Space for the Engines

    27.6.2. Building the Turbines

    27.6.3. Adding the Exhaust

Module 28. Low Poly 3D Studio MAX Modeling

Do you want to get an advanced learning in 3D Polygonal Modeling with Studio MAX? Do it through this university degree"

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.

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 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.

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

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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 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.

30%

10%

8%

20%

25%

4%

3%
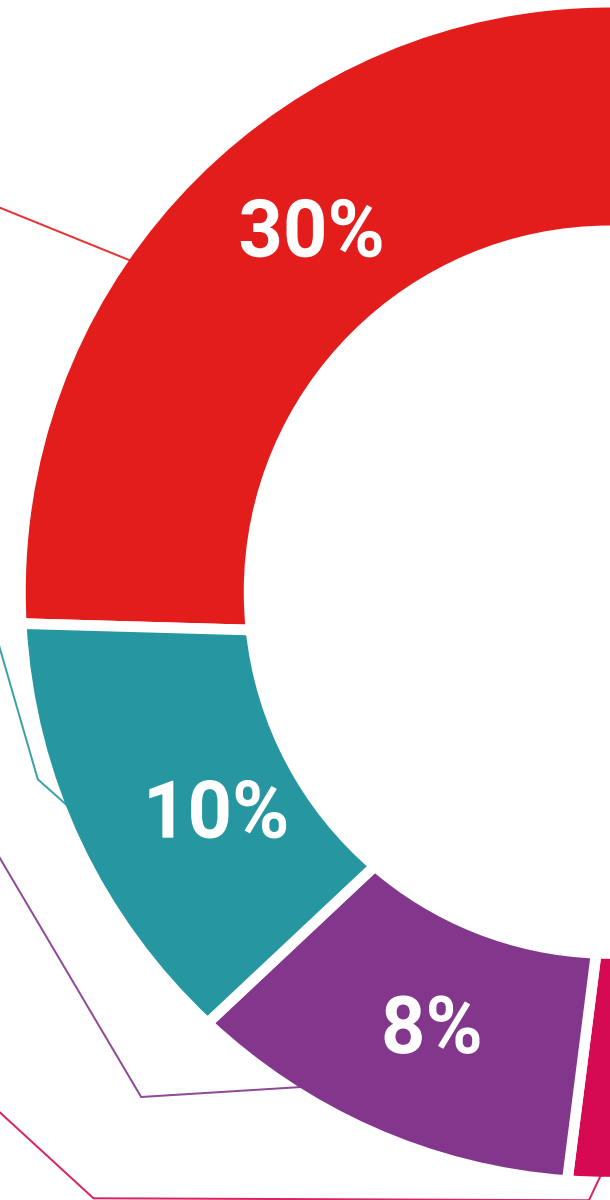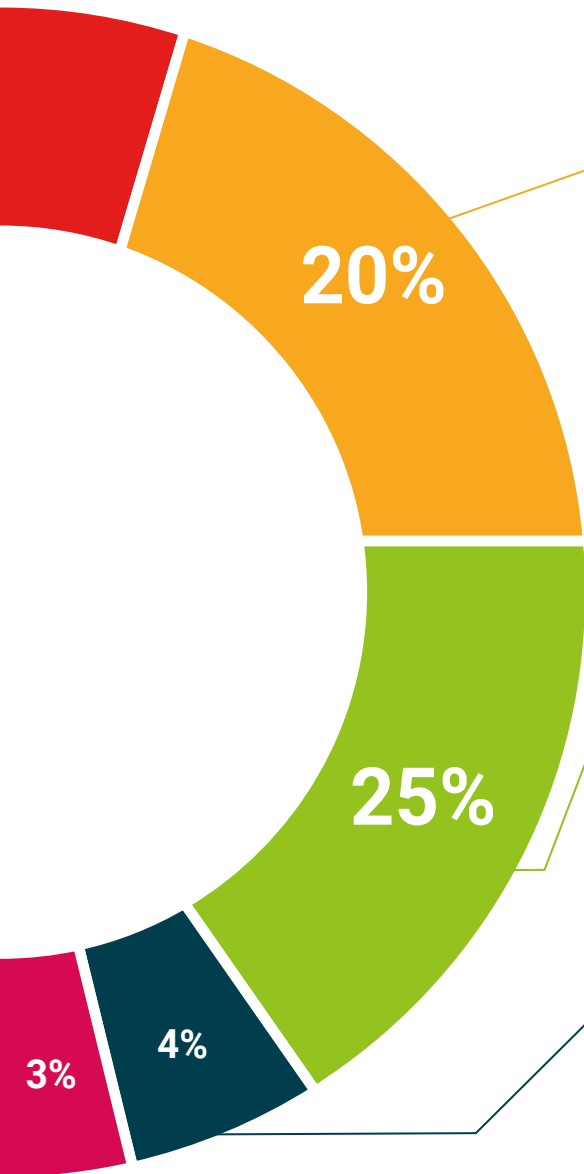
Case Studies

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.

Certificate

The Advanced Master's Degree in Integral 3D Modeling guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree diploma 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 **Advanced Master's Degree diploma in Integral 3D Modeling** 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.
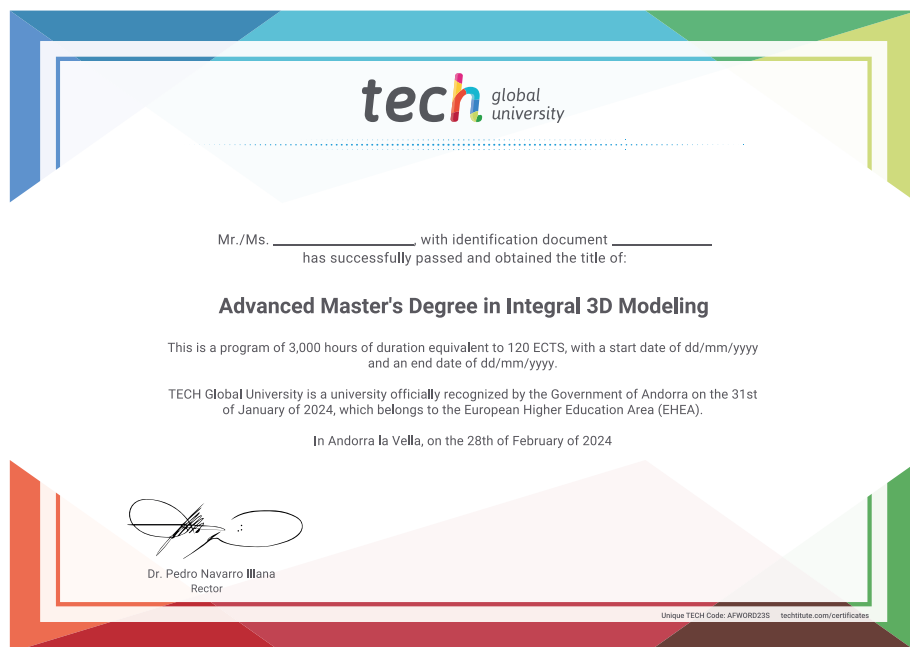
Title: **Advanced Master's Degree in Integral 3D Modeling**

Modality: **online**

Duration: **2 years**

Accreditation: **120 ECTS**

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Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Advanced Master's Degree in Integral 3D Modeling

This is a program of 3,000 hours of duration equivalent to 120 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

Unique TECH Code: AFWORD23S   techtitute.com/certificates

Advanced Master's Degree in Integral 3D Modeling

General Structure of the Syllabus

Year	Subject	ECTS	Type	Year	Subject	ECTS	Type
1º	Anatomy	4	CO	2º	Texturing	4	CO
1º	Retopology and Maya Modeling	4	CO	2º	Substance Painter Texturing	4	CO
1º	Uvs and Texturing with Allegorithmic Substance	4	CO	2º	Rendering	4	CO
1º	Painter and Mari	4	CO	2º	Rendering with VRay Engine in 3DS Max	4	CO
1º	Rendering, Lighting and Posing of Models	4	CO	2º	Characters	4	CO
1º	Hair Creation for Video Games and Movies	4	CO	2º	Exports to Unreal	4	CO
1º	Clothing Simulation	4	CO	2º	Study of Figure and Shape	4	CO
1º	Stylized Characters	4	CO	2º	Hard Surface Modeling	4	CO
1º	Creature Modeling	4	CO	2º	Technical Modeling in Rhino	4	CO
1º	Blender: A New Twist in the Industry	4	CO	2º	Modeling Techniques and their Application in Rhino	4	CO
1º	Creation of Organic Environments in Unreal Engine	4	CO				
1º	3D Modeling with 3ds Max	4	CO	2º	Advanced Modeling in Rhino	4	CO
1º	Advanced 3D Modeling with 3DS Max	4	CO	2º	Polygonal Modeling in 3D Studio Max	4	CO
1º	3D Modeling with Graphite Tool	4	CO	2º	Advanced Polygonal Modeling in 3D Studio Max	4	CO
1º	3D Modeling with ZBrush	4	CO	2º	Low Poly 3D Studio Max Modeling	13	CO

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*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.

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Advanced Master's Degree
Integral 3D Modeling

» Modality: **online**
» Duration: **2 years**
» Certificate: **TECH Global University**
» Credits: **120 ECTS**
» Schedule: **at your own pace**
» Exams: **online**

Advanced Master's Degree
Integral 3D Modeling