

Professional Master's Degree

Video Game Narrative





Professional Master's Degree Video Game Narrative

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/videogames-design/professional-master-degree/master-video-game-narrative

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01

Introduction

Most of today's great video games have been so successful because of, among other reasons, their interesting stories and complex characters. The current state of the industry has resulted in players increasingly needing more complex and attractive narratives, which has led to the emergence of a figure that has become essential: the video game scriptwriter. Companies need scriptwriters to write their next video games, and this Professional Master's Degree provides students with all the necessary knowledge to do so, so that after completing this program they will be highly sought-after professionals in this sector.





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*Thanks to this Professional Master's Degree, you will be capable of writing a script on par with *The Last of Us*”*

In recent years, there has been a revolution in the video game industry that has increased the number of players, the number of new titles and the variety of game styles. Therefore, within this transformation, users have been demanding more complexity, more realism and greater size, in all senses, in the video games they consume.

One of these demands has also had to do with the narrative. Current gamers are demanding and wanting to play video games with interesting and profound storylines. For this reason, big companies in the sector need scriptwriters with appropriate training, who are capable of creating attractive stories adapted to this audiovisual media.

This Professional Master's Degree in Video Game Narrative is the answer for all those professionals interested in being great specialists who write the stories that millions of players worldwide will love and enjoy. In this way, this program offers a series of skills applied to the creation of video games scripts which will help students to become true experts in the subject, putting them in the position to be able to work with the best projects in the world.

This **Professional Master's Degree in Video Game Narrative** contains the most complete and up-to-date program on the market. Its most notable features are:

- ◆ Practical cases presented by experts in Video Game Narrative
- ◆ The graphic, schematic and practical contents with which they are conceived, gather scientific and practical information on those disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ 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



You will be the Aaron Sorkin of video games"

“

You love to write and create stories and the video game industry needs creative people like you: specialize now and achieve success”

The teaching staff of this program includes professionals from the industry, who contribute the experience of their work to this program, in addition to recognized specialists from reference 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 learning programmed to learn in real situations.

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

Write top level scripts for video games thanks to this program.

This program is the key to you entering into the biggest companies in the industry.



02 Objectives

The main objective of this Professional Master's Degree in Video Game Narrative is to offer students the best knowledge focused on the creation of scripts and stories for this audiovisual field. Therefore, thanks to this program, students will obtain all the tools required to become successful specialists in the subject matter, in such a way that they become true specialists who will be sought after by the most famous companies in the world.





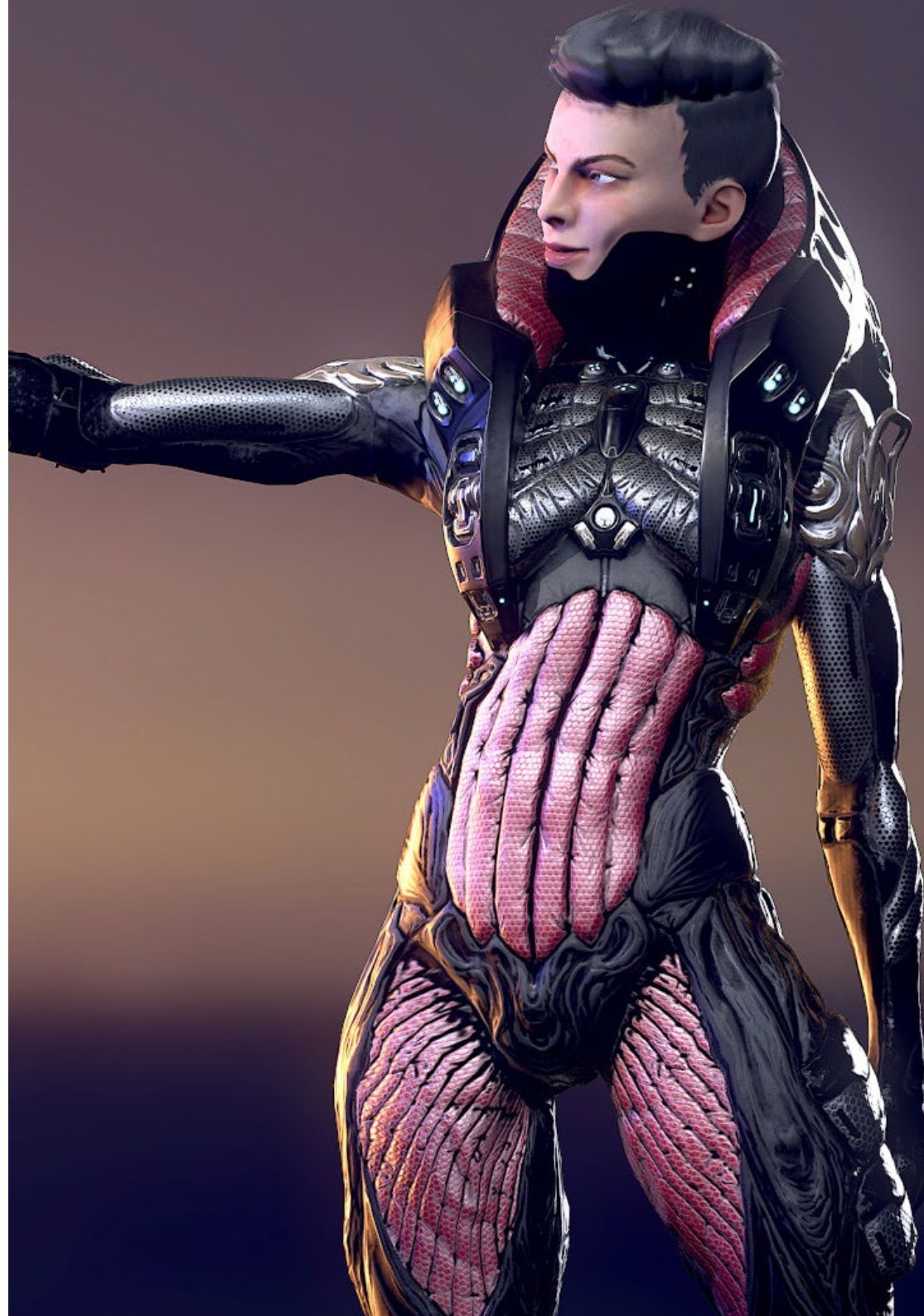
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Enroll now and achieve all your goals”



General Objectives

- ◆ Understand the different elements that make up a story
- ◆ Apply narrative structure to the video game format
- ◆ Explore, in depth, the process of script writing and storyboard for a video game, differentiating between all the stages involved
- ◆ Analyze the key components and concepts that should be found in a script
- ◆ Study the narrative fundamentals and the hero's journey as one of the main forms of narration
- ◆ Examine storyboarding and animatics, highlighting their importance within the scripting process
- ◆ Know the different genres and existing narratives in the world of video games
- ◆ Learn to develop effective dialogue through the script





Specific Objectives

Module 1. Video Game Design

- ◆ Know the theory of video game design
- ◆ Gain in-depth knowledge of the elements of design and gamification
- ◆ Learn the types of players that exist, their motivations and characteristics
- ◆ Gain knowledge of game mechanics, knowledge of MDA and other game design theories
- ◆ Learn the critical bases for the analysis of videogames with theory and examples
- ◆ Learn about the design of game levels, to create puzzles within these levels and place all the design elements in the environment

Module 2. Design Document

- ◆ Write and illustrate a professional design document
- ◆ Know each one of the parts of design: general idea, market, gameplay, mechanics, levels, progression, elements of the game, HUD and interface
- ◆ Know the design process of a design document or GDD to be able to represent the idea of the game in an understandable, professional and well-elaborated document

Module 3. Video Game Narrative

- ◆ Determine the narrative pulses in certain audiovisual formats
- ◆ Develop own ideas in a creative and structured way in different texts
- ◆ Develop characters and dialogues that can be used in the script of a video game

Module 4. Video Game Design: Script and Storyboarding

- ◆ Gain in-depth knowledge of the history of video games, the main sources of ideas and the narrative through images
- ◆ Study the different elements that make up a script, the protagonists, antagonists and setting
- ◆ Address Pitching and how to effectively sell a script to a development group
- ◆ Review the history and evolution of Storyboarding, focusing on its specific use in the scripting of video games
- ◆ Delve into the narrative of arcade, FPS, RPGs, adventure and platform games
- ◆ Evaluate the use of love, humor, fear, horror and surrealism within narrative dialogues

Module 5. Consoles and Devices for Videogames

- ◆ Know the basic functioning of the main input and output peripherals
- ◆ Understand the main implications of design for different platforms
- ◆ Study the structure, organization, functioning and interconnection of devices and systems
- ◆ Understand the function of the operative system and the development kits for mobile devices and video game platforms

Module 6. 3D Modeling

- ◆ Ascertain the internal structure of a video game engine
- ◆ Establish the elements of a modern video game architecture
- ◆ Understand the functions of each one of the video game components
- ◆ Examine examples of video games made with 2D and 3D graphics

Module 7. Video Game Engines

- ◆ Discover video game engine operation and architecture
- ◆ Understand the basic features of existing game engines
- ◆ Correctly and efficiently program applications applied to video game engines
- ◆ Choose the most appropriate paradigm and programming languages to program applications applied to video game engines

Module 8. Human-Computer Interaction

- ◆ Explore the different accessibility guidelines, the standards that establish them and the tools to evaluate them, as well as the different methods of interaction with the computer, through peripherals and devices
- ◆ Understand the importance of application usability and the different types of human diversity, the limitations they imply and how to adapt interfaces according to the specific needs of each of them
- ◆ Learn the process of interface design, from requirements analysis to evaluation
- ◆ Go through the various intermediate steps necessary to make a proper interface



Module 9. Video Games and Simulation for Research and Education

- ◆ Examine the main characteristics of representative serious games in the fields of education and research
- ◆ Understanding how video games can affect people's emotional state
- ◆ Obtain the ability to evaluate video games from different approaches

Module 10. Multiplayer Networks and Systems

- ◆ Describe the Transmission Control Protocol/Internet Protocol (TCP/IP) architecture and the basic operation of wireless networks
- ◆ Analyze video game security
- ◆ Acquire the ability to develop online games for multiple players

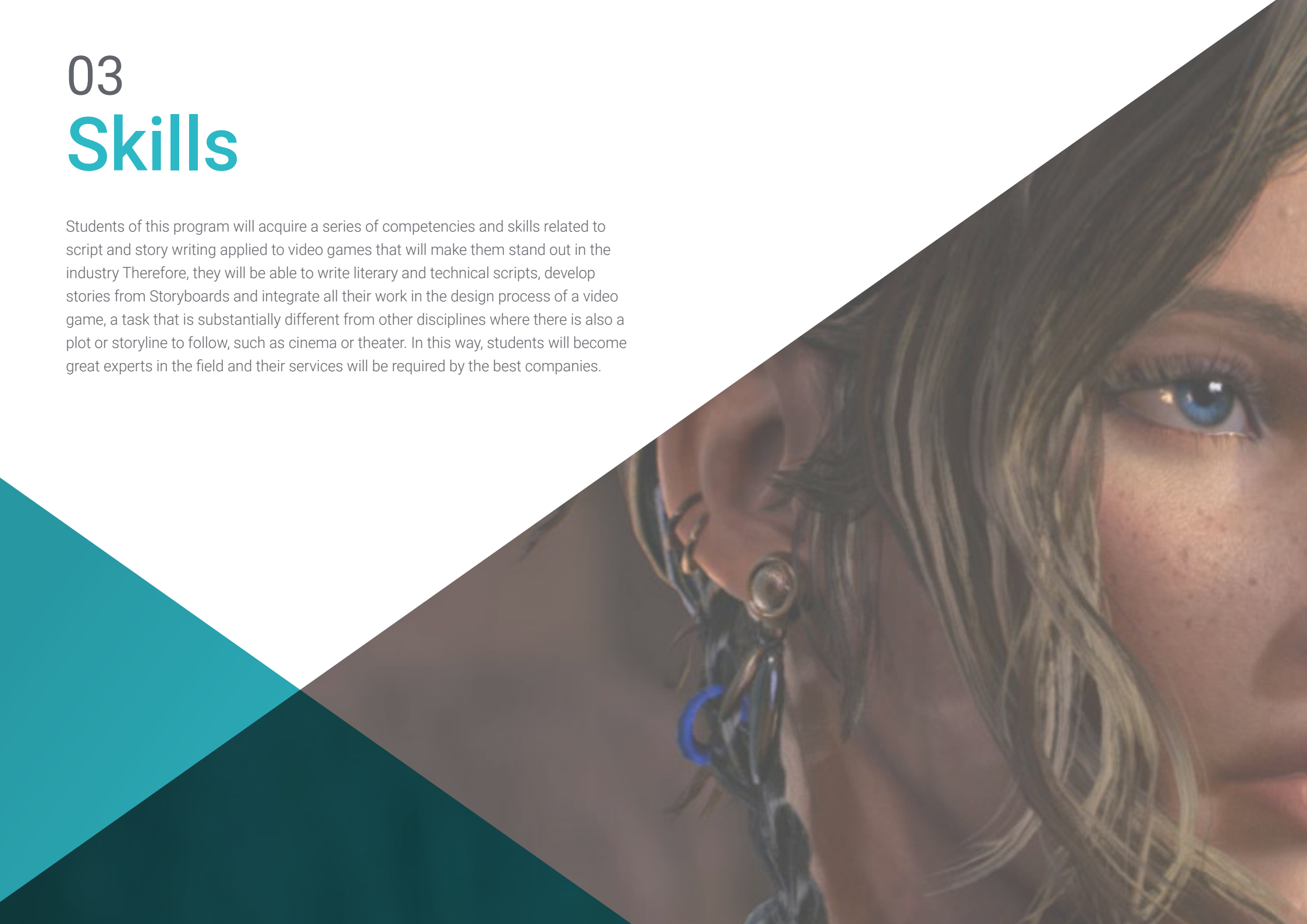
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There is no better program to make you a great screenwriter”



03 Skills

Students of this program will acquire a series of competencies and skills related to script and story writing applied to video games that will make them stand out in the industry. Therefore, they will be able to write literary and technical scripts, develop stories from Storyboards and integrate all their work in the design process of a video game, a task that is substantially different from other disciplines where there is also a plot or storyline to follow, such as cinema or theater. In this way, students will become great experts in the field and their services will be required by the best companies.





“

*Your new script writing skills
will help you achieve success”*



General Skills

- ◆ Understand what makes a good story
- ◆ Know how to apply creative writing techniques to the creation of video game scripts
- ◆ Specialize as a video game script writer
- ◆ Gain in-depth knowledge of all parts of the development of a video game script, knowing, to perfection, all the phases involved
- ◆ Obtain an overall vision of the project, being able to provide solutions to the different problems and challenges that arise in the design of a video game
- ◆ Provide the project with creativity to achieve its objectives

“

You love video games and have the talent to create new and interesting stories: Study this program and acquire the skills required in order to do so”





Specific Skills

- ◆ Write video game scripts quickly and efficiently
- ◆ Write literary and technical scripts applied to this discipline
- ◆ Know tools such as Storyboard to develop the project in a correct way
- ◆ Respond to all the problems that may arise in the creative phase of the video game
- ◆ Understand player experience and know how to analyze the gameplay of the video game
- ◆ Understand all the theoretical and practical procedures involved in the process of creating a video game in order to be able to integrate the work of scriptwriting appropriately

04

Course Management

This academic program includes the most specialized teaching staff in the current educational market. They are specialists selected by TECH to develop the whole syllabus. In this way, starting from their own existence and the latest evidence, they have designed the most up-to-date content that provides a guarantee of quality in such a relevant subject.



“

TECH offers the most specialized teaching staff in the field of study. Enroll now and enjoy the quality you deserve”

International Guest Director

Virginie Mosser, also known as Navie or Mademoiselle Navie, is a leading global figure in the literary, television and multimedia scene. Her passion for storytelling has merged in an exceptional way with her love for video games, where she has found fertile ground to explore new forms of storytelling and interactive entertainment.

In this way, this expert has been responsible for leading multidisciplinary teams and taking on different challenges in prestigious entities of international recognition. In particular, she has overseen the generation of unique universes and brand coherence through scripts and staging. Other responsibilities have included reviewing the company's editorial content for internal promotion and external marketing of products.

Furthermore, Virginie Mosser has said that her professional success is linked to an early interest in storytelling. As a child, she began writing and soon came to shape funny and quirky stories, such as that of Nelly C, one of her most original characters, which has never left her. To these magnetic personalities of his narratives, she has incorporated originality and inclusive elements.

After years of giving free rein to her imagination on paper, she has ventured into different means of expression. From scripts for television, digital and print media, to graphic novels, comics and board games such as The Geek Culture Box, her career has touched most creative terrains. Also, her versatility and talent led her to work as a freelance author, tackling issues such as feminism, the fight against fatphobia, gender equality and support for the LGBTQIA+ community.



Ms. Mosser, Virginie

- Narrative Director of the R&D unit focused on Gen AI
- Creative Director for the Mobvil Project at Ubisoft
- Consultant for the Video Game Assistance Fund of the National Center for Cinema and the Moving Image
- Freelance Comics Scriptwriter at Editions Delcourt
- Audiovisual Scriptwriter at Arena Films
- Television Scriptwriter at France Télévisions
- Audiovisual Producer at FIRR Productions
- Columnist at Lagardere Active
- Co-founder and Editor at Un Beau Jour
- Social Media Content Creator at Proximity BBDO
- Community Manager at ArtFX Training
- Columnist and Reviewer at FHM Magazine
- Master's Degree in Contemporary History at La Sorbonne University

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

05

Structure and Content

The contents of this Professional Master's Degree in Video Game Narrative have been designed by leading experts in the field, so that students are able to acquire all the necessary knowledge to become specialists in the development of stories for video games. Therefore, its structure in 10 modules will help them develop a whole series of skills that will make them write the best scripts for the best video games of the future.





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Conducted by experts in the field, this syllabus guarantees you will learn everything about 3D animation in virtual reality environments”

Module 1. Video Game Design

- 1.1. The Design
 - 1.1.1. Design
 - 1.1.2. Types of Design
 - 1.1.3. Design Process
- 1.2. Design Elements
 - 1.2.1. Rules
 - 1.2.2. Balance
 - 1.2.3. Fun
- 1.3. Types of Players
 - 1.3.1. Explorer and Social
 - 1.3.2. Killer and Winners
 - 1.3.3. Differences
- 1.4. Player Skills
 - 1.4.1. Role Skills
 - 1.4.2. Action Skills
 - 1.4.3. Platform Skills
- 1.5. Game Mechanics I
 - 1.5.1. Components
 - 1.5.2. Physical
 - 1.5.3. Items
- 1.6. Game Mechanics II
 - 1.6.1. Keys
 - 1.6.2. Platforms
 - 1.6.3. Enemies
- 1.7. Other Elements
 - 1.7.1. Mechanisms
 - 1.7.2. Dynamics
 - 1.7.3. Aesthetics
- 1.8. Video Game Analysis
 - 1.8.1. Analysis of Game Play
 - 1.8.2. Artistic Analysis
 - 1.8.3. Style Analysis

- 1.9. Level Design
 - 1.9.1. Level Design Inside
 - 1.9.2. Level Design Outside
 - 1.9.3. Mixed Level Design in Interiors
- 1.10. Advanced Level Design
 - 1.10.1. Puzzles
 - 1.10.2. Enemies
 - 1.10.3. Environment

Module 2. Design Document

- 2.1. Structure of the Document
 - 2.1.1. Design Document
 - 2.1.2. Structure
 - 2.1.3. Style
- 2.2. General Idea, Market and References
 - 2.2.1. General Idea
 - 2.2.2. Market
 - 2.2.3. References
- 2.3. Setting, Story and Characters
 - 2.3.1. Ambience
 - 2.3.2. History
 - 2.3.3. Characters
- 2.4. Gameplay, Mechanisms and Enemies
 - 2.4.1. Gameplay
 - 2.4.2. Mechanisms
 - 2.4.3. Enemies and NPC
- 2.5. Controls
 - 2.5.1. Controller
 - 2.5.2. Laptop
 - 2.5.3. Computer
- 2.6. Levels and Progression
 - 2.6.1. Levels
 - 2.6.2. Journey
 - 2.6.3. Progression

2.7. Items, Skills and Elements

2.7.1. Items

2.7.2. Skills

2.7.3. Components

2.8. Achievements

2.8.1. Medals

2.8.2. Secret Characters

2.8.3. Extra Points

2.9. HUD and Interface

2.9.1. HUD

2.9.2. Interface

2.9.3. Structure

2.10. Saved and Attached

2.10.1. Saved

2.10.2. Annexed Information

2.10.3. Final Details

Module 3. Video Game Narrative

3.1. Why Tell a Story?

3.1.1. Introduction

3.1.2. Narration and Sense

3.1.3. Narrative Video Games vs. Action-Based Video Games

3.1.4. Subtleties in the Narrative

3.2. The Idea of Audiovisual Storytelling

3.2.1. Video Game Narrative

3.2.2. Video Game Script

3.2.3. Main Arguments in Different Video Game Plots

3.2.4. Structure, Characters and Dialogues Developed in the Video Game Script

3.3. The Structure of Audiovisual Storytelling

3.3.1. The Idea

3.3.2. The Structure of Storytelling

3.3.3. Genre, Format and Tone

3.3.4. Narrative Point of View

3.4. Content of the Story: Action Nodes and Types

3.4.1. Examples of Action Nodes

3.4.2. Practical Narrative Example I

3.4.3. Practical Examples Narrative II

3.4.4. Practical Examples Narrative III

3.5. Storytelling in a Video Game: Interaction

3.5.1. Introduction

3.5.2. Playable Nodes and Open Structures

3.5.3. Narration and Interaction

3.5.4. Applications of Interactive Narrative

3.6. Storytelling in a Video Game: Immersion

3.6.1. Introduction

3.6.2. Environmental Narrative

3.6.3. Visual Narrative of Characters

3.6.4. Evolution of the Narrative in Video Games

3.7. Creation of Characters

3.7.1. Defining the Character

3.7.2. Pre-Production, Briefing, Submission Dates, Milestone

3.7.3. Basic Structure of the Character with Geometric Shapes. Understanding of the Canon and Proportions

3.7.4. Body Expression. Torsions. Giving Them Personality

3.7.5. Basic Structure of the Face, Facial Expressions and Variants in the Structure

3.7.6. Character Design Finishes According to the Needs of the Project

3.7.7. Preparation of the Character Sheet for Production

3.8. Principles of Interactive Narrative

3.8.1. Pragmatics of the Design. Persuasion and Seduction

3.8.2. Conflict and Idea in Interactive Speech

3.8.3. Character Building. Avatar and Player Representation

3.8.4. Narrative and Ludic Structures. Narrative Spaces in Video Games. Dialogue Tree and Ramifications

- 3.9. Theories of Interactive Narrative
 - 3.9.1. Introduction to the Narrative and Interaction
 - 3.9.2. Hypertext and Cybertext. Digital and Procedural Rhetoric
 - 3.9.3. Ludonarrative and Ludofiction. Fictional Interactive Worlds
 - 3.9.4. Applications of Interactive Narrative
- 3.10. History of the Narrative in Video Games
 - 3.10.1. 1980-1990
 - 3.10.2. 1990-2000
 - 3.10.3. 2000-2010
 - 3.10.4. 2010- Present Day

Module 4. Video Game Design: Script and Storyboarding

- 4.1. Script and Storyboard
 - 4.1.1. History of the Video Game
 - 4.1.2. Product Sheet
 - 4.1.3. Ideas Source
 - 4.1.4. Narrative through Images
- 4.2. Key Components in Scripts and Storyboard
 - 4.2.1. Conflict
 - 4.2.2. Protagonist: Defining Keys
 - 4.2.3. Antagonists, NPCs
 - 4.2.4. The Scene
- 4.3. The Script: Key Concepts
 - 4.3.1. The History
 - 4.3.2. Argument
 - 4.3.3. Literary Script
 - 4.3.4. The Play-List
 - 4.3.5. Technical Script
- 4.4. The Script: Fundamentals of the Narrative
 - 4.4.1. Dialogue: The Rightful Importance of the Word
 - 4.4.2. Types of Characters
 - 4.4.3. How to Create a Character
 - 4.4.4. Transformation Arches
 - 4.4.5. Pitching: Selling a Script

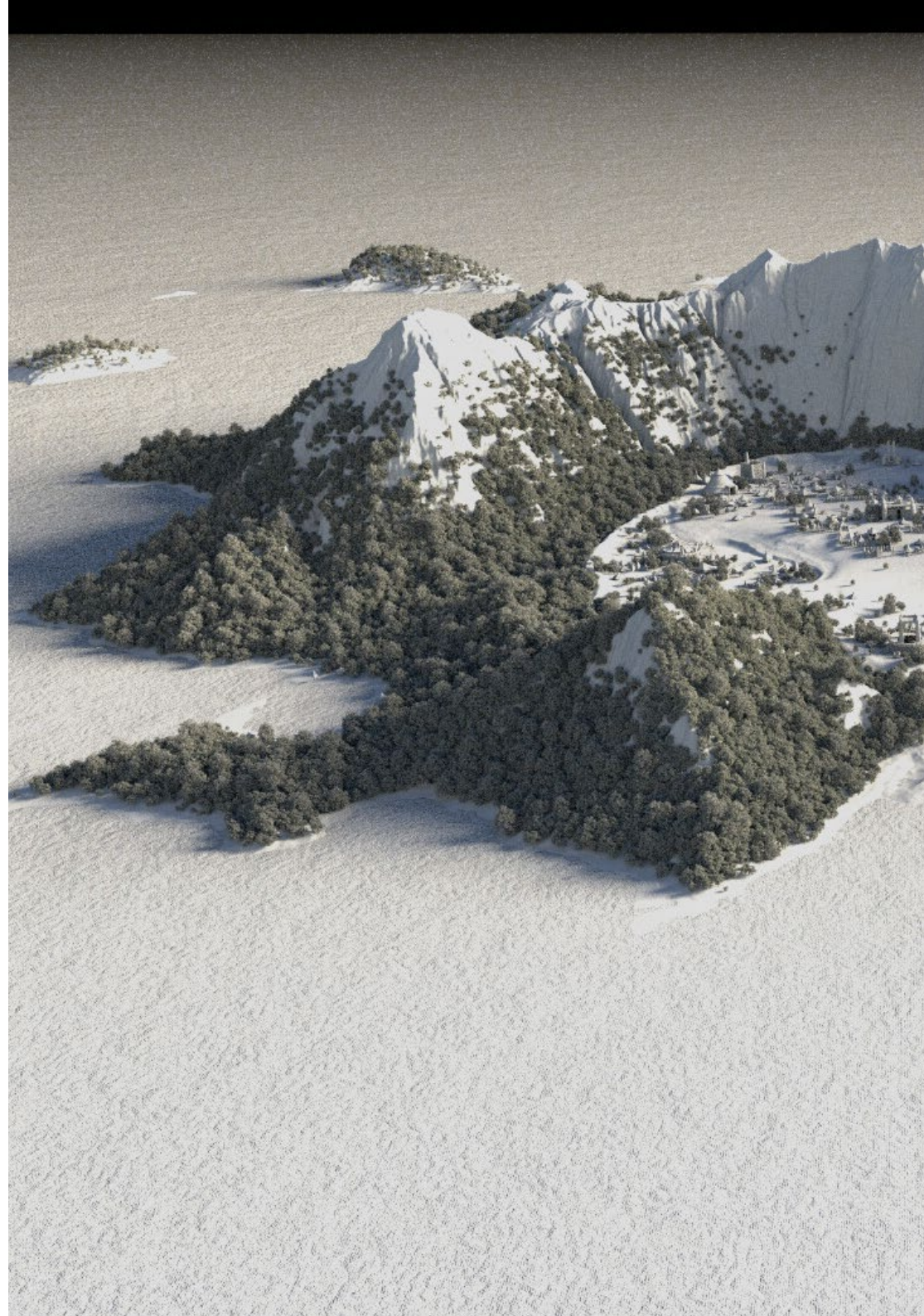
- 4.5. The Script: The Hero's Journey and the Aristotelian Figure
 - 4.5.1. What is the Hero's Journey?
 - 4.5.2. Stages of the Hero According to Vogler
 - 4.5.3. How to Apply the Hero's Journey to Our Stories
 - 4.5.4. Examples of Applied Hero's Journey
- 4.6. The Storyboard
 - 4.6.1. Introduction, History and Evolution of the Art of the Storyboard
 - 4.6.2. Functionality and Art
 - 4.6.3. Writing and Drawings in Storyboard
 - 4.6.4. Choice of Framing, Continuity, Angulation, Clarity
 - 4.6.5. Staging of Characters: Pre-Posing
 - 4.6.6. Environments, Backgrounds and Shading
 - 4.6.7. Written Information and Conventional Signs
- 4.7. The Animatic
 - 4.7.1. Use of Animatic
 - 4.7.2. Precursors to Animatic in Storyboard
 - 4.7.3. How to Make an Animatic
 - 4.7.4. Timing
- 4.8. Genres and Polyhedral Narrative
 - 4.8.1. Character Design
 - 4.8.2. Adventure
 - 4.8.3. Narrative Adventures
 - 4.8.4. RPGs
- 4.9. Lineal Narratives
 - 4.9.1. Arcades, FPS and Platform Games
 - 4.9.2. Alternative Narratives
 - 4.9.3. Serious Games and Simulators
 - 4.9.4. Sport and Driving Games
- 4.10. Dialogue through a Script
 - 4.10.1. Love, Humor and Surrealism
 - 4.10.2. Fear, Horror and Disgust
 - 4.10.3. Realistic Dialogues
 - 4.10.4. Interpersonal Relationships

Module 5. Consoles and Devices for Videogames

- 5.1. History of Programming in Video Games
 - 5.1.1. Atari (1977-1985)
 - 5.1.2. Nintendo and Super Nintendo Entertainment Systems (NES and SNES) (1985-1995)
 - 5.1.3. PlayStation / PlayStation 2 (1995-2005)
 - 5.1.4. Xbox 360, PlayStation 3 and Nintendo Wii (2005-2013)
 - 5.1.5. Xbox One, PS4 and Wii U–Switch Era (2013-Present)
 - 5.1.6. The Future
- 5.2. History of Gameplay in Video Games
 - 5.2.1. Introduction
 - 5.2.2. The Social Context
 - 5.2.3. Structural Diagram
 - 5.2.4. Future
- 5.3. Adapting to Modern Times
 - 5.3.1. Games Based on Movement
 - 5.3.2. Virtual Reality
 - 5.3.3. Augmented Reality
 - 5.3.4. Mixed Reality
- 5.4. Unity: Scripting I and Examples
 - 5.4.1. What Is a Script?
 - 5.4.2. Our First Script
 - 5.4.3. Adding a Script
 - 5.4.4. Opening a Script
 - 5.4.5. MonoBehaviour
 - 5.4.6. Debugging
- 5.5. Unity: Scripting II and Examples
 - 5.5.1. Keyboard and Mouse Input
 - 5.5.2. Raycast
 - 5.5.3. Installation
 - 5.5.4. Variables:
 - 5.5.5. Public and Serialized Variables
- 5.6. Unity: Scripting III and Examples
 - 5.6.1. Obtaining Components
 - 5.6.2. Modifying Components
 - 5.6.3. Testing
 - 5.6.4. Multiple Objects
 - 5.6.5. Colliders and Triggers
 - 5.6.6. Quaternions
- 5.7. Peripherals
 - 5.7.1. Evolution and Classification
 - 5.7.2. Peripherals and Interfaces
 - 5.7.3. Current Peripherals
 - 5.7.4. Near Future
- 5.8. Video Games: Future Perspectives
 - 5.8.1. Games Based in the Cloud
 - 5.8.2. Absence of Controllers
 - 5.8.3. Immersive Reality
 - 5.8.4. Other Alternatives
- 5.9. Architecture
 - 5.9.1. Special Needs in Video Games
 - 5.9.2. Evolution of Architecture
 - 5.9.3. Current Architecture
 - 5.9.4. Differences Between Architecture
- 5.10. Development Kits and Their Evolution
 - 5.10.1. Introduction
 - 5.10.2. Third Generation of Development Kits
 - 5.10.3. Fourth Generation of Development Kits
 - 5.10.4. Fifth Generation of Development Kits
 - 5.10.5. Sixth Generation of Development Kits

Module 6. 3D Modeling

- 6.1. 3D in Video Games: Why Is It Important?
 - 6.1.1. History of Computer-Generated 3D
 - 6.1.2. Implementation of 3D in Video Games
 - 6.1.3. Techniques for 3D Optimization in Video Games
 - 6.1.4. Interaction Between Graphic Software and Game Engines
- 6.2. 3D Modeling: Maya
 - 6.2.1. Maya's Philosophy
 - 6.2.2. Capabilities of Maya
 - 6.2.3. Projects Created with Autodesk Maya
 - 6.2.4. Introduction to Modeling, Rigging, and Texturing Tools
- 6.3. 3D Modeling: Blender
 - 6.3.1. Blender's Philosophy
 - 6.3.2. Past, Present, and Future
 - 6.3.3. Projects Created with Blender
 - 6.3.4. Blender Cloud
 - 6.3.5. Introduction to Modeling, Rigging, and Texturing Tools
- 6.4. 3D Modeling: ZBrush
 - 6.4.1. ZBrush's Philosophy
 - 6.4.2. Integration of ZBrush in a Production Pipeline
 - 6.4.3. Advantages and Disadvantages Compared to Blender
 - 6.4.4. Analysis of Designs Created in ZBrush
- 6.5. 3D Texturing: Substance Designer
 - 6.5.1. Introduction to Substance Designer
 - 6.5.2. Substance Designer's Philosophy
 - 6.5.3. Substance Designer in Video Game Production
 - 6.5.4. Interaction Between Substance Designer and Substance Painter
- 6.6. 3D Texturing: Substance Painter
 - 6.6.1. What Is Substance Painter Used For?
 - 6.6.2. Standardization of Substance Painter
 - 6.6.3. Stylized Texturing with Substance Painter
 - 6.6.4. Realistic Texturing with Substance Painter
 - 6.6.5. Analysis of Textured Models





- 6.7. 3D Texturing: Substance Alchemist
 - 6.7.1. What Is Substance Alchemist?
 - 6.7.2. Substance Alchemist Workflow
 - 6.7.3. Alternatives to Substance Alchemist
 - 6.7.4. Project Examples
- 6.8. Rendering: Texture Mapping and Baking
 - 6.8.1. Introduction to Texture Mapping
 - 6.8.2. UV Mapping
 - 6.8.3. UV Optimization
 - 6.8.4. UDIMs
 - 6.8.5. Integration with Texturing Software
- 6.9. Rendering: Advanced Lighting
 - 6.9.1. Lighting Techniques
 - 6.9.2. Contrast Balancing
 - 6.9.3. Color Balancing
 - 6.9.4. Lighting in Video Games
 - 6.9.5. Resource Optimization
 - 6.9.6. Pre-Rendered vs Real-Time Lighting
- 6.10. Rendering: Scenes, Render Layers, and Passes
 - 6.10.1. Using Scenes
 - 6.10.2. Utility of Render Layers
 - 6.10.3. Utility of Passes
 - 6.10.4. Integration of Passes in Photoshop

Module 7. Video Game Engines

- 7.1. Video Games and ICT
 - 7.1.1. Introduction
 - 7.1.2. Opportunities
 - 7.1.3. Challenges
 - 7.1.4. Conclusions

- 7.2. History of Video Game Engines
 - 7.2.1. Introduction
 - 7.2.2. Atari
 - 7.2.3. The 80s
 - 7.2.4. First Engines. The 90s
 - 7.2.5. Current Engines
- 7.3. Video Game Engines
 - 7.3.1. Types of Engines
 - 7.3.2. Video Game Engine Parts
 - 7.3.3. Current Engines
 - 7.3.4. Selecting an Engine for Our Project
- 7.4. Motor Game Maker
 - 7.4.1. Introduction
 - 7.4.2. Scenarios Design
 - 7.4.3. Sprites and Animations
 - 7.4.4. Collisions
 - 7.4.5. Scripting in Game Maker Languages (GML)
- 7.5. Unreal Engine 4: Introduction
 - 7.5.1. What Is Unreal Engine 4? What Is Its Philosophy?
 - 7.5.2. Materials
 - 7.5.3. UI
 - 7.5.4. Animations
 - 7.5.5. Particle Systems
 - 7.5.6. Artificial Intelligence
 - 7.5.7. Frames Per Second (FPS)
- 7.6. Unreal Engine 4: Visual Scripting
 - 7.6.1. Blueprints and Visual Scripting Philosophy
 - 7.6.2. Debugging
 - 7.6.3. Types of Variables
 - 7.6.4. Basic Flow Control
- 7.7. Unity 5 Engine
 - 7.7.1. C# y Visual Studio Programming
 - 7.7.2. Creating Prefabs
 - 7.7.3. Using Gizmos to Control Video Games
 - 7.7.4. Adaptive Engine: 2D and 3D
- 7.8. Godot Engine
 - 7.8.1. Godot Design Philosophy
 - 7.8.2. Object- and Composition-Oriented Design
 - 7.8.3. All in One Package
 - 7.8.4. Open and Community-Driven Software
- 7.9. RPG Maker Engine
 - 7.9.1. RPG Maker Philosophy
 - 7.9.2. Taking as a Reference
 - 7.9.3. Creating a Game with Personality
 - 7.9.4. Commercially Successful Games
- 7.10. Source 2 Engine
 - 7.10.1. Source 2 Philosophy
 - 7.10.2. Source and Source 2: Evolution
 - 7.10.3. Use of the Community: Audiovisual Content and Video Games
 - 7.10.4. Future of Source 2 Engine
 - 7.10.5. Successful Mods and Games

Module 8. Human-Computer Interaction

- 8.1. Introduction to Human-Computer Interaction
 - 8.1.1. What is Human-Computer Interaction?
 - 8.1.2. Relationship Between Human-Computer Interaction and Other Disciplines
 - 8.1.3. User Interface

- 8.1.4. Usability and Accessibility
- 8.1.5. User Experience and User-Focused Design Methodology
- 8.2. Computer and Interaction: User Interface and Interaction Paradigms
 - 8.2.1. Interaction
 - 8.2.2. Paradigms and Styles of Interaction
 - 8.2.3. Evolution of User Interfaces
 - 8.2.4. Classic User Interfaces: WIMP/GUI, Commands, Voice, Virtual Reality
 - 8.2.5. Innovative User Interfaces: Mobiles, Laptops, Collaborative, BCI
- 8.3. The Human Factor: Psychological and Cognitive Aspects
 - 8.3.1. The Importance of the Human Factor in Interaction
 - 8.3.2. Human Information Processing
 - 8.3.3. The Input and Output of Information: Visual, Audio and Tactile
 - 8.3.4. Perception and Attention
 - 8.3.5. Knowledge and Mental Models: Representation, Organization and Acquisition
- 8.4. The Human Factor: Sensory and Physical Limitations
 - 8.4.1. Functional Diversity, Disability and Deficiency
 - 8.4.2. Visual Diversity
 - 8.4.3. Audio Diversity
 - 8.4.4. Cognitive Diversity
 - 8.4.5. Motor Diversity
 - 8.4.6. The Case of Digital Immigrants
- 8.5. Design Process (I): Requirements Analysis for the User Interface Design
 - 8.5.1. User-Centered Design
 - 8.5.2. What is Requirements Analysis?
 - 8.5.3. Collection of Information
 - 8.5.4. Analysis and Interpretation of Information
 - 8.5.5. Usability and Accessibility Analysis

- 8.6. Design Process (II): Prototype and Task Analysis
 - 8.6.1. Conceptual Design
 - 8.6.2. Prototyping
 - 8.6.3. Hierarchic Task Analysis
- 8.7. Design Process (III): The Evaluation
 - 8.7.1. Evaluation in the Design Process: Objectives and Methods
 - 8.7.2. Evaluation Methods Without Users
 - 8.7.3. Evaluation Methods With Users
 - 8.7.4. Evaluation Standards and Rules
- 8.8. Accessibility: Definition and Steps
 - 8.8.1. Universal Accessibility and Design
 - 8.8.2. WAI Initiative and WCAG Steps
 - 8.8.3. WCAG 2.0 and 2.1
- 8.9. Accessibility: Evaluation and Functional Diversity
 - 8.9.1. Web Site Accessibility Evaluation Tools
 - 8.9.2. Accessibility and Functional Diversity
- 8.10. The Computer and Interaction: Peripherals and Devices
 - 8.10.1. Traditional Peripherals and Devices
 - 8.10.2. Alternative Peripherals and Devices
 - 8.10.3. Mobiles and Tablets
 - 8.10.4. Functional Diversity, Interaction and Peripherals

Module 9. Video Games and Simulation for Research and Education

- 9.1. Introduction to Serious Video Games
 - 9.1.1. What Does a Serious Game Involve?
 - 9.1.2. Features
 - 9.1.3. Highlights

- 9.1.4. Advantages of Serious Games
- 9.2. Motivation and Objectives of Serious Games
 - 9.2.1. Creation of Serious Games
 - 9.2.2. Motivation of Serious Games
 - 9.2.3. Objectives of Serious Games
 - 9.2.4. Conclusions
- 9.3. Simulation Games
 - 9.3.1. Introduction
 - 9.3.2. Game- Simulation
 - 9.3.3. Video Games and ICT
 - 9.3.4. Games, Simulations and Management
- 9.4. Training-Oriented Design
 - 9.4.1. Gamification Model
 - 9.4.2. Rewards
 - 9.4.3. Incentives
 - 9.4.4. Gamification Applied to Work
- 9.5. How to Carry Out Effective Gamification
 - 9.5.1. The Theory of Diversion
 - 9.5.2. Gamification and Willpower
 - 9.5.3. Gamification and New Technologies
 - 9.5.4. Famous Examples
- 9.6. Learning: Game Flow and Progress
 - 9.6.1. Game Flows
 - 9.6.2. Feeling of Progress
 - 9.6.3. Feedback
 - 9.6.4. Degree of Completion
- 9.7. Learning Process: Game-Based Evaluation
 - 9.7.1. Kahoot!
 - 9.7.2. Methodology
 - 9.7.3. Results
 - 9.7.4. Conclusions Extracted
- 9.8. Fields of Study: Educational Application
 - 9.8.1. Case Study: Application of Gamification Techniques in Class
 - 9.8.2. Step 1: User and Context Analysis
 - 9.8.3. Step 2: Learning Objectives Definition
 - 9.8.4. Step 3: Designing the Experience
 - 9.8.5. Step 4: Identifying Resources
 - 9.8.6. Step 5: Application of Gamification Elements
- 9.9. Field of Study: Simulation and Mastery of Skills
 - 9.9.1. Gamification, Simulators and Orientation Towards the Entrepreneurial Attitude
 - 9.9.2. Sample
 - 9.9.3. Data Collection
 - 9.9.4. Data Analysis and Results
 - 9.9.5. Conclusions
- 9.10. Field of Study: Therapy Tools (Real Cases)
 - 9.10.1. Therapeutic Gamification: Main Objectives
 - 9.10.2. Virtual Reality Therapies
 - 9.10.3. Therapies with Adapted Peripherals
 - 9.10.4. Conclusions Extracted

Module 10. Multiplayer Networks and Systems

- 10.1. History and Evolution of Multiplayer Video Games
 - 10.1.1. The 1970s: First Multiplayer Games
 - 10.1.2. The 90s: Duke Nuke, Doom and Quake

- 10.1.3. Rise of Multiplayer Video Games
- 10.1.4. Local and Online Multiplayer
- 10.1.5. Party Games
- 10.2. Multiplayer Business Games
 - 10.2.1. Origin and Function of Emerging Business Models
 - 10.2.2. Online Sales Services
 - 10.2.3. Free to Play
 - 10.2.4. Micropayments
 - 10.2.5. Advertising
 - 10.2.6. Monthly Payment Subscription
 - 10.2.7. Pay to Play
 - 10.2.8. Try before You Buy
- 10.3. Local and Network Games
 - 10.3.1. Local Games: Beginnings
 - 10.3.2. Party Games: Nintendo and Family Union
 - 10.3.3. Networks Games: Beginnings
 - 10.3.4. Network Games Evolution
- 10.4. OSI Model: Layers I
 - 10.4.1. OSI Model: Introduction
 - 10.4.2. Physical Layer
 - 10.4.3. Data Link Layer
 - 10.4.4. Network Layer
- 10.5. OSI Model: Layers II
 - 10.5.1. Transport Layer
 - 10.5.2. Session Layer
 - 10.5.3. Presentation Layer
 - 10.5.4. Application Layer
- 10.6. Computer Networks and the Internet
 - 10.6.1. What Are Computer Networks?
 - 10.6.2. Software
 - 10.6.3. Hardware
 - 10.6.4. Servers
 - 10.6.5. Network Storage
 - 10.6.6. Network Protocols
- 10.7. Mobile and Wireless Networks
 - 10.7.1. Mobile Networks
 - 10.7.2. Wireless Networks
 - 10.7.3. How Mobile Networks Work
 - 10.7.4. Digital Technology
- 10.8. Confidence
 - 10.8.1. Personal Security
 - 10.8.2. Video Game Hacks and Cheats
 - 10.8.3. Anti-Cheating Safety
 - 10.8.4. Anti-Cheating Security Systems Analysis
- 10.9. Multiplayer Systems: Servers
 - 10.9.1. Server Hosting
 - 10.9.2. Massively Multiplayer Online (MMO) Video Games
 - 10.9.3. Dedicated Video Game Servers
 - 10.9.4. Local Area Network (LAN) Parties
- 10.10. Multiplayer Video Game Design and Programming
 - 10.10.1. Multiplayer Video Game Design Basics in Unreal
 - 10.10.2. Multiplayer Video Game Design Basics in Unity
 - 10.10.3. How to Make a Multiplayer Game Fun
 - 10.10.4. Beyond a Controller: Innovation in Multiplayer Controls

06

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

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

Case Study to contextualize all content

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

“

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



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



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

A learning method that is different and innovative

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

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

The case method has been the most widely used learning system among the world's leading business schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Over the course of 4 years, you will be presented with multiple practical case studies. You will have to combine all your knowledge, and research, argue, and defend your ideas and decisions.

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Practising Skills and Abilities

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



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



07 Certificate

The Professional Master's in Video Game Narrative guarantees students, in addition to the most rigorous and up-to-date education, access to a qualification 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 **Professional Master's Degree diploma in Video Game Narrative** 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: **Professional Master's Degree in Video Game Narrative**

Modality: **online**

Duration: **12 months**

Accreditation: **60 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.



Professional Master's Degree Video Game Narrative

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Professional Master's Degree

Video Game Narrative

