Advanced Master's Degree

Senior Management in Video Game Companies

tech technological university

tech technological university

Advanced Master's Degree

Senior Management in Video Game Companies

Course Modality: **Online**
Duration: **2 years**
Certificate: **TECH Technological University**
Official N° of hours: **3,000 h.**
Website: www.techtitute.com/in/videogames/advanced-master-degree/advanced-master-degree-senior-management-video-game-companies

Index

01

Introduction

The video game industry has established itself in the last 10 years as one of the most powerful industries worldwide. Millions of people consume these products every day, and numerous companies are created every week trying to access this important market. Thus, this field offers great business opportunities, as projects of all kinds, whether they are video games with international commercial potential or independent works, have their respective niche users. That is why it is such a lucrative industry, and that is why professionals who wish to undertake and manage a company in this field have a great opportunity with this program, as it will prepare them to face all the present and future challenges in the industry. All of which will be presented in a 100% online teaching methodology that will allow students to balance their work with their studies, since it is completely adapted to their personal circumstances.

Create and manage a successful video game company thanks to this program, where you will learn the best business management methods used in this exciting industry"

Of the many industries that make up the audiovisual field, the most successful today is video games. This sector has become on a par with others such as cinema or music, thanks to technological improvements that have enabled the development of games with highly advanced mechanics, narratives and graphics, and to the popularization of multiplayer modes on the Internet. Thus, video games are a leisure experience shared by millions of people.

That is why this industry has so much potential: its numerous users, spread across different niches, allow companies to develop games that can reach different *gamer profiles*. Having the best knowledge and skills in business management applied to this field can propel professionals toward success. And that is the objective of this program, with which the entrepreneur can delve into issues such as eSports management, business management or video game design and development processes.

This Advanced Master's Degree is also imparted through an online learning system designed so professionals can decide how, when and where to study, without rigid schedules or uncomfortable commutes. Furthermore, they will have the best teaching staff and the most advanced educational resources, to which there will be access 24 hours a day from any electronic device with an Internet connection.

This **Advanced Master's Degree in Senior Management in Video Game Companies** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- Practical cases presented by experts in video game companies
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- Practical exercises where self-assessment can be used to improve learning
- Special emphasis on innovative methodologies in the management of video game companies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

The video game industry is booming. Seize the moment and specialize in Senior Management in Video Game Companies thanks to this Advanced Master's Degree, which will provide you with everything you need to succeed in this field"

The 100% online methodology used to develop the program will allow you to continue performing your professional work without interruption"

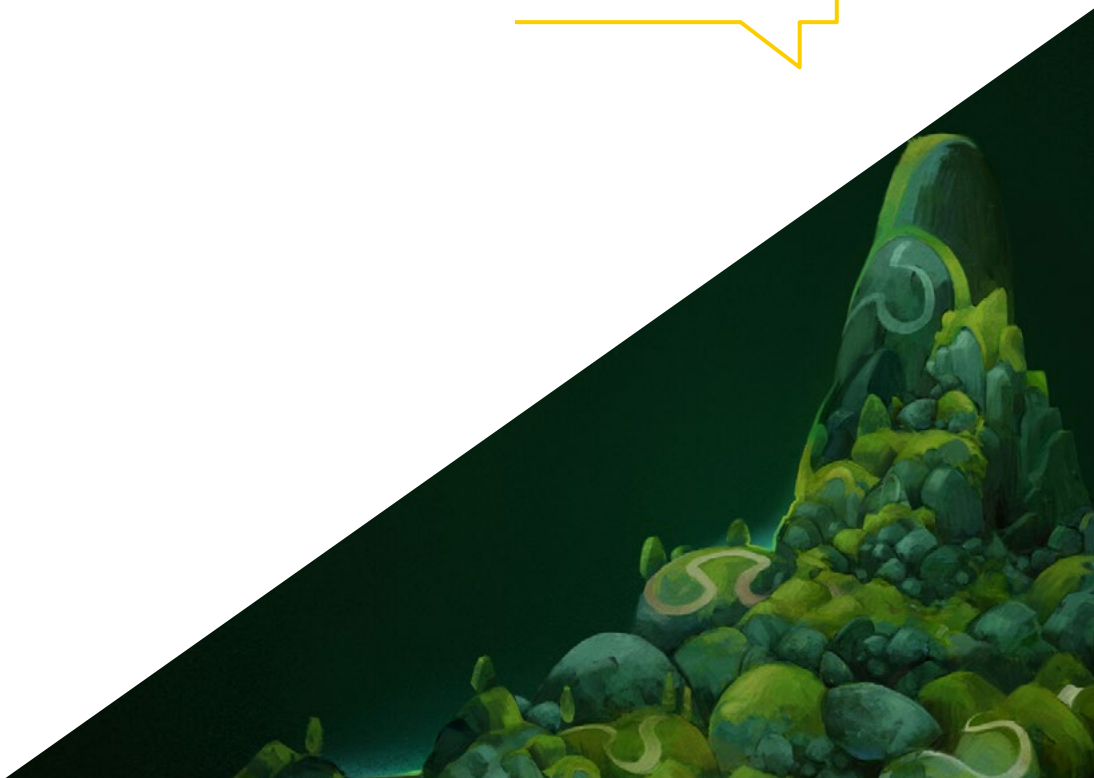
The most prestigious teaching staff will support you through the entire learning process to ensure you obtain the best tools in business management.

You will have the best didactic resources at your fingertips to expand your knowledge of video game company management: videos, readings, interactive summaries, and master classes.

The teaching staff includes professionals belonging to the video games industry, who pour into this program the experience of their work, in addition to recognized specialists of reference societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide professionals with situated and contextual learning, i.e., a simulated environment that will deliver an immersive learning experience, programmed to train in real situations.

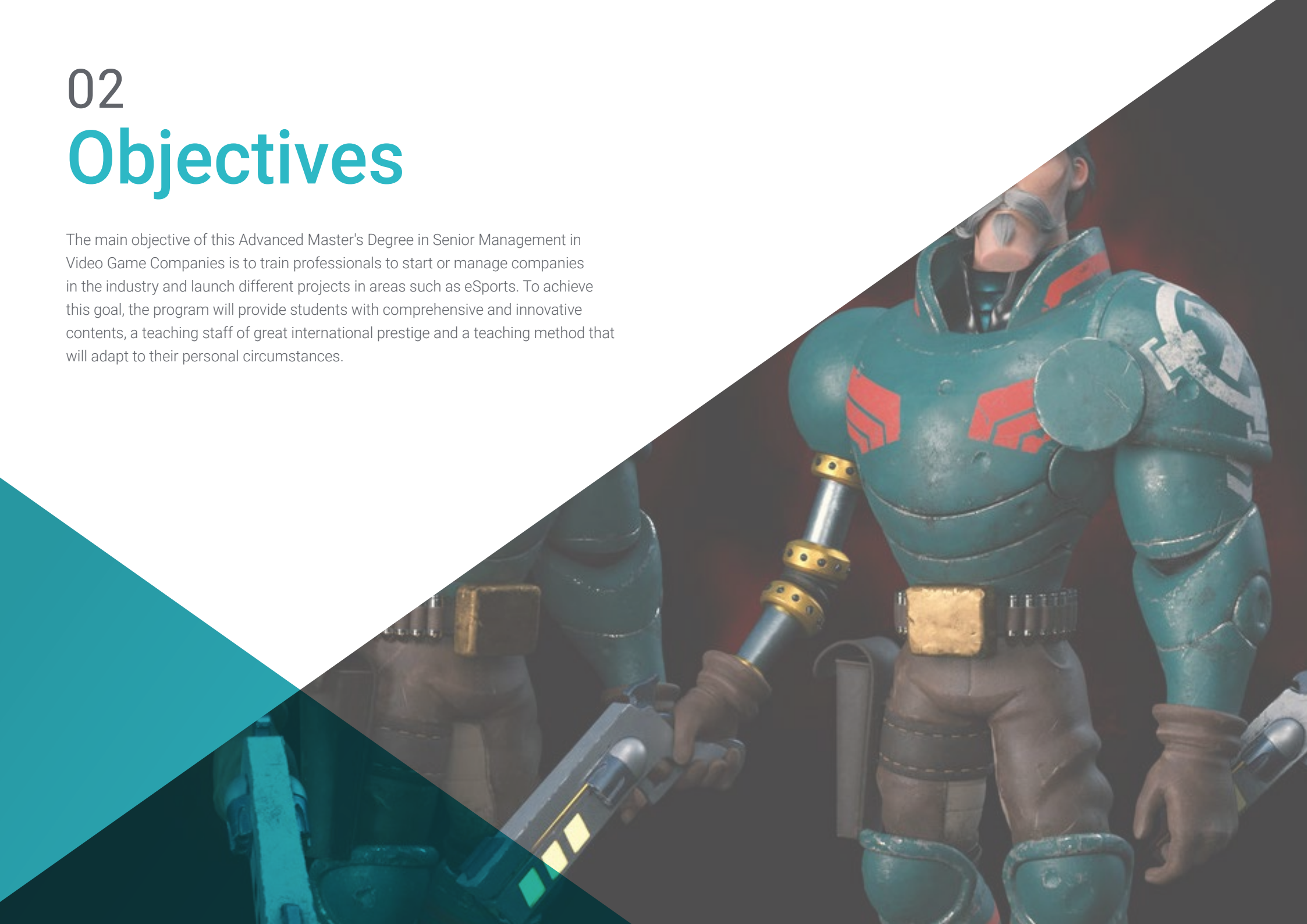
This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced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



02

Objectives

The main objective of this Advanced Master's Degree in Senior Management in Video Game Companies is to train professionals to start or manage companies in the industry and launch different projects in areas such as eSports. To achieve this goal, the program will provide students with comprehensive and innovative contents, a teaching staff of great international prestige and a teaching method that will adapt to their personal circumstances.



Undertake major projects in the video game industry thanks to the knowledge you will acquire on this specialized program"

General Objectives

- Know the different video game genres, the concept and features of gameplay in order to apply them in video game analysis and design
- Learn the fundamentals of video game design and the theoretical knowledge that a video game designer should possess
- Know the theoretical and practical bases of video game artistic design
- Delve into 2D and 3D animation, as well as the key elements of object and character animation
- Master 3D modeling tasks
- Master video game engines
- Generate strategies for the industry
- Gain in-depth understanding of video game projects and design
- Gain in-depth knowledge of emerging technologies and innovations in the industry
- Develop video game-oriented strategies
- Master the functional areas of businesses in the video game industry
- Learn how to develop marketing and sales strategies in detail
- Learn how to create companies in the video game market in a comprehensive way
- Gain in-depth knowledge of the impact on project management and in team leadership

Specific Objectives

Module 1. Graphic and Artistic Expression

- Learn to correctly represent the proportions and postures of the human figure and other elements that can be included in video games
- Understand the different methods of three-dimensional representation on a flat surface
- Develop spatial representations with both graphic and computer tools
- Produce video game scenarios based on different spatial perspectives

Module 2. 2D Animation

- Apply the means available for the development of 2D animation
- Understand the principles of proportion in animated artistic representation
- Understand that animation is a means that provides thematic freedom
- Optimize the use of resources to achieve new planned objectives

Module 3. Motion Graphics

- Perform digital post-production tasks with multilayer digital compositing and digital video editing software
- Translate an idea from its initial conception through preparatory drawings
- Make use of tools, filters and effects in the production of graphic originals in order to act effectively as a member of a creative team
- Accomplish complex task objectives and develop a wide variety of ideas

Module 4. 3D Art

- Model and texturize 3D objects and characters
- Gain knowledge about the 3D Studio Max and Mudbox program interface for modeling objects and characters
- Understand the theory of 3D modeling
- Be able to extract textures
- Get to know how 3D cameras work

Module 5. 3D Design

- Examine in depth models of complex natures, as well as modeling techniques
- Optimize modeling time
- Manage advanced tools for 3D design in order to provide post-production support for final visualization
- Create environments and atmospheres for digital worlds

Module 6. Computer Graphics

- Establish the technical specifications of the most commonly used graphic libraries for the creation of synthetic images
- Understand the basic principles of 2D and 3D imaging as well as methods in image creation
- Apply visualization, animation, simulation and interaction techniques to models

Module 7. Video Game Engines

- Discover how a video game engine works and its architecture
- Understand their basic features and to modify existing game engines
- Program applications correctly and efficiently
- Choose the most appropriate programming paradigm and programming languages

Module 8. Character Design and Animation

- Apply the principles of character creation
- Understand the basic concepts of animation and the applications of character modeling and animation in the context of video games
- Know how to define character skeletons and use them to control their movement

Module 9. Animation and Simulation

- Apply the use of animation and physics simulation libraries in video games, as well as the use of animation software for sound
- Assimilate the fundamental physics principles to simulate in a video game, the method of motion capture and the basic techniques of physical simulation
- Create a skeleton animation character

Module 10. Character Rigging

- Prepare 3D elements for animation
- Apply physically correct deformations to 3D models
- Acquire skills in the use of digital tools
- Learn skills on character weighing for animation

Module 11. Strategy in Digital and Video Game Companies

- Know the context and the components of business strategy with a focus on the video game industry

Module 12. Video Game Company Management

- Learn the entire structure of the industry's value chain in detail and obtain the necessary skills to manage the various organizations in the industry

Module 13. Digital Marketing and Digital Transformation in Video Games

- Identify and know how to develop all the disciplines and techniques of Gaming Marketing that enable companies to boost their business models in the video game industry

Module 14. Video Game Company Formation

- Gain a broad body of knowledge of the main aspects involved in starting a company that will position itself within the video game market

Module 15. Project Management

- Acquire detailed knowledge of project operations and management

Module 16. Innovation

- Comprehensively study the main elements to develop innovative and viable solutions for different video game services and products

Module 17. Financial Management

- Identify and recognize the most critical aspects of economic and financial management as one of the main competencies for business management

Module 18. Commercial Management

- Develop high-commercial competencies in the main processes to increase sales and business development capabilities in video game companies

Module 19. eSports Management

- Learn and study the whole eSports sub-ecosystem, both in terms of its main players and business models, in order to be able to develop this market

Module 20. Leadership and Talent Management

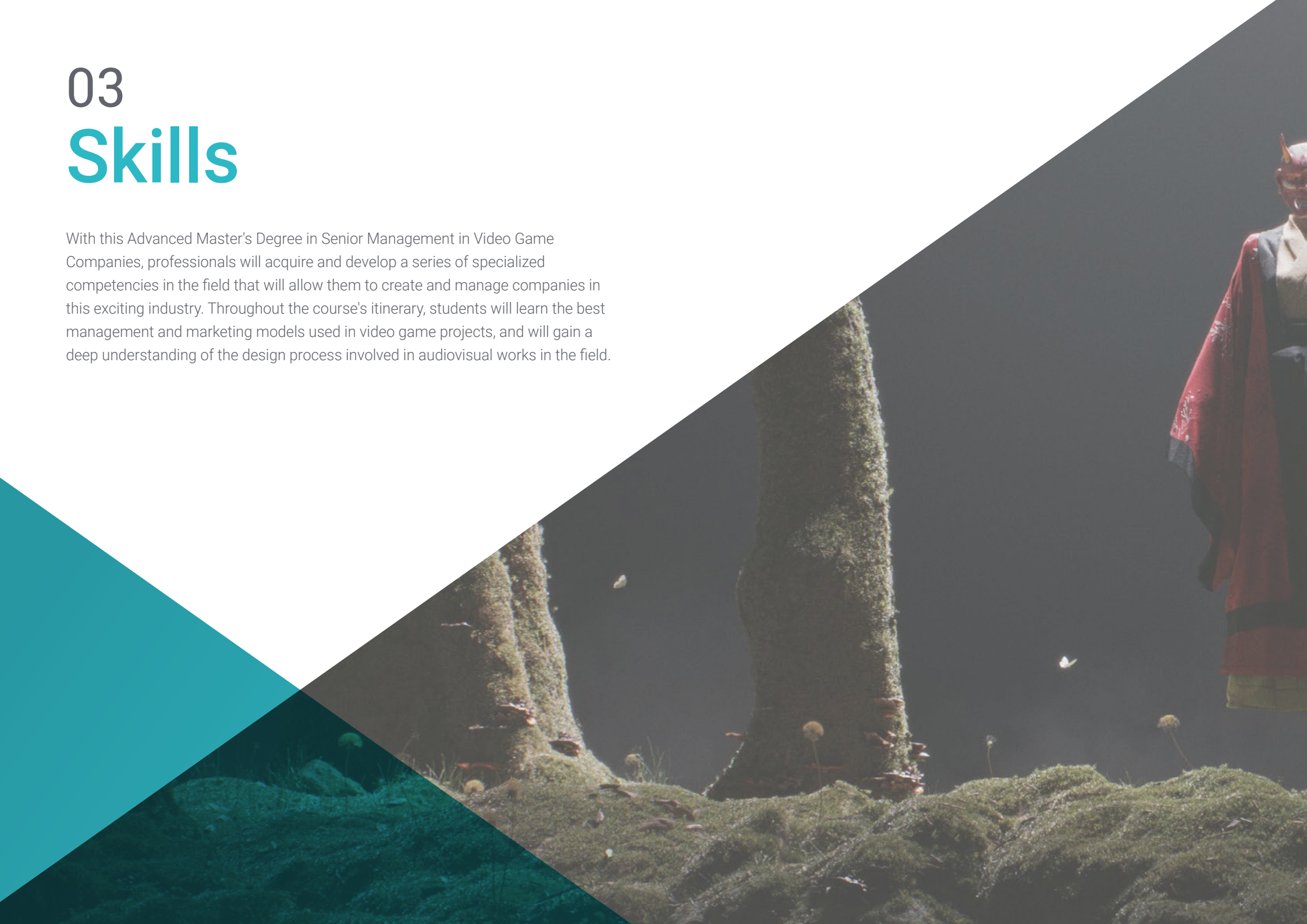
- Acquire competencies and skills based on the new competencies required to lead business models and projects in the video game industry

Reach all your professional goals thanks to this Advanced Master's Degree, designed to provide you with all the latest developments in the video game industry"

03

Skills

With this Advanced Master's Degree in Senior Management in Video Game Companies, professionals will acquire and develop a series of specialized competencies in the field that will allow them to create and manage companies in this exciting industry. Throughout the course's itinerary, students will learn the best management and marketing models used in video game projects, and will gain a deep understanding of the design process involved in audiovisual works in the field.



This program will allow you to develop the best professional skills in creating and managing video game companies”

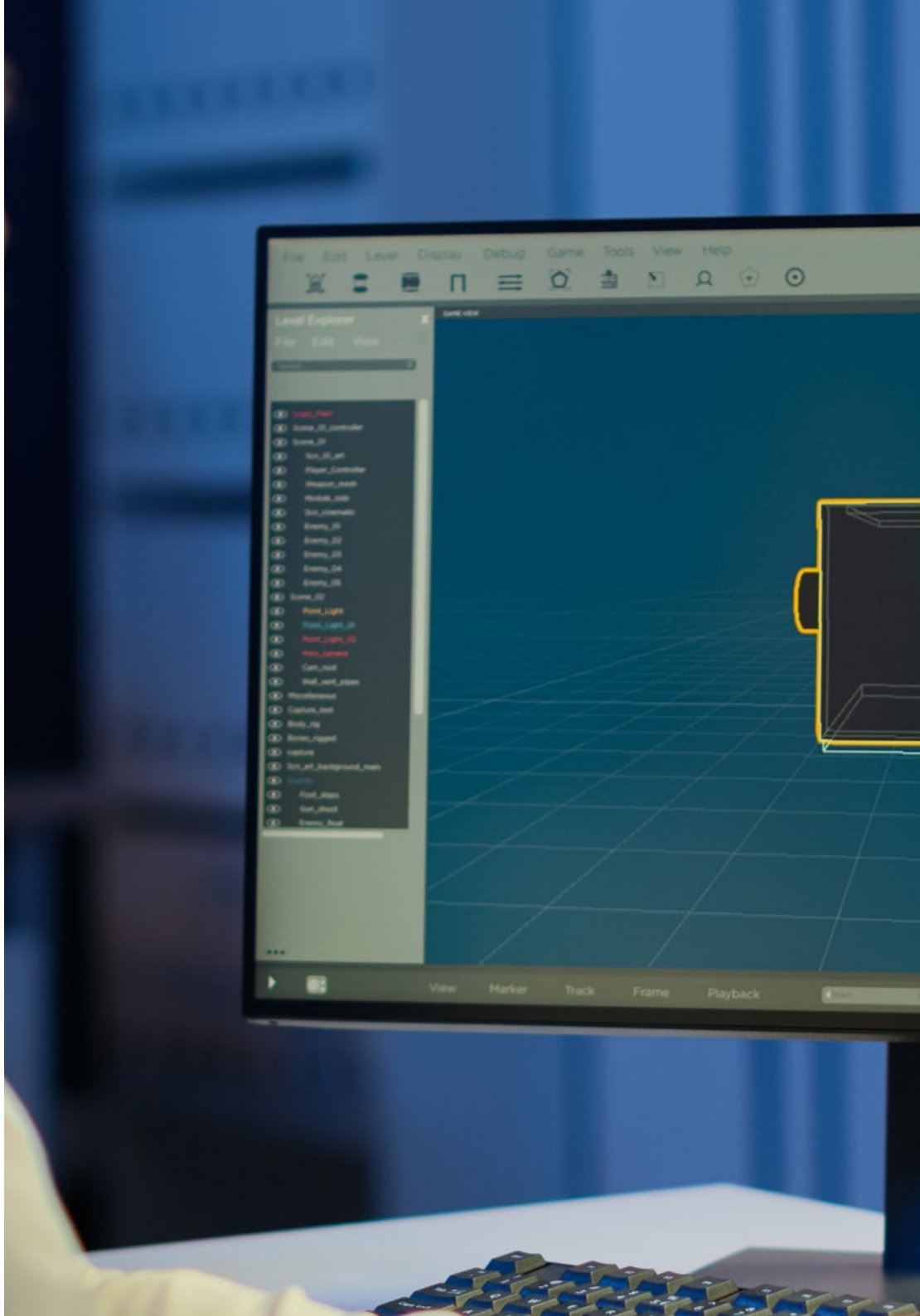
General Skills

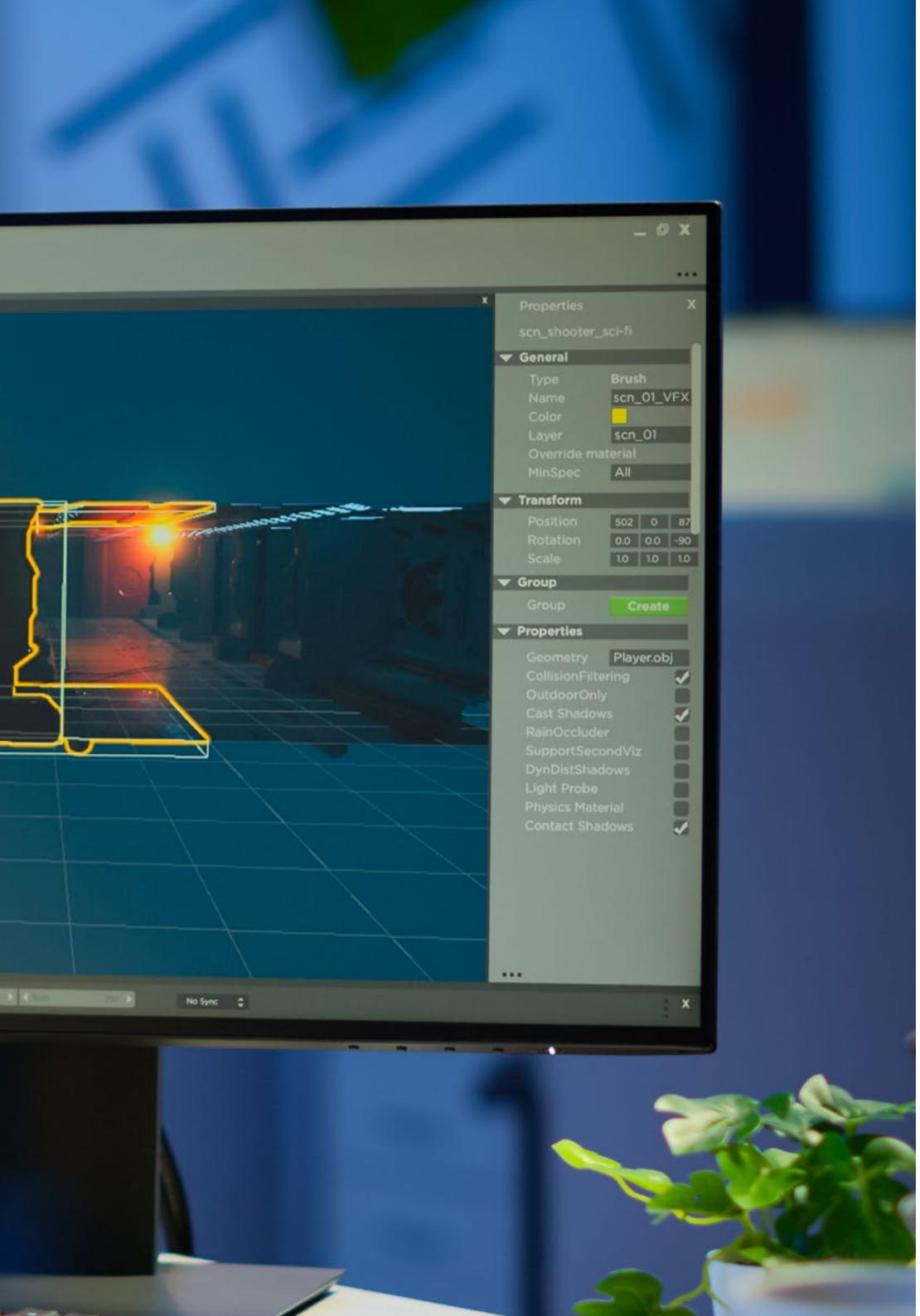
- Acquire the necessary skills to develop video games
- Specialize in order to become an expert *video game* designer
- Delve into all parts of development, from the initial architecture, the programming of the player character, the implementation of animations, and the creation of the artificial intelligence of enemy characters and non-playable characters
- 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
- Develop business strategies oriented toward digital and video game companies
- Master the management areas of digital and video game companies
- Learn in-depth video game project design
- Understand the video game industry ecosystem in depth
- Learn in detail the technologies at the disposal of video games, from a business point of view
- Have a comprehensive understanding of the impact of Marketing and Sales actions
- Analyze the financial and economic management of a video game business
- Understand in detail the main aspects for the creation of video game businesses
- Acquire high standards on emerging technologies and innovation in the video game industry
- Acquire the most complex skills and competencies to lead business models and products from the field of video games

Specific Skills

- Get to know the necessary tools to be a professional in the design and development of video games
- Understand the player's experience and know how to analyze video game gameplay
- Understand the entire theoretical and practical procedure of a Concept Artist's creation process
- Understand the theoretical and practical procedure of a 2D artist
- Perform 3D modeling and texturing of objects and characters
- Have a broad knowledge of 2D and 3D video game programming
- Perform 2D and 3D animation for video games and apply 2D and 3D video game programming for different platforms
- Learn character rigging
- Immerse yourself in the strategic scope of digital and video game companies
- Analyze aspects such as the strategic process and the need to analyze the different variables required for a strategic formulation
- Know the study tools for the analysis of the video game sector, the competitive position and the economic environment
- Substantiate the objectives and functions of strategic management in digital and video game companies
- Consider the elements that make up the structure of the sector and the particular value chain
- Review the elements of the video game value chain
- Add value in aspects such as e-commerce
- Evaluate professional profiles in the video game industry and professional *esports clubs*
- Learn how to design Digital Marketing plans
- Emphasize traffic and audience acquisition to distribute commercial messages
- Work on Display and Programmatic Advertising techniques
- Learn Inbound Marketing and Account Based Marketing
- Assimilate Digital Marketing processes and current solutions for automation
- Learn what is required to start a company and achieve sustainability
- Review key Business Plan elements and the required investment
- Study the details in video game production and the operations subsequent to market launch
- Analyze how new online distribution models operate
- Acquire knowledge on project management
- Understand the architectures used in video game projects

- Work on cases of project conception, launch and implementation phases
- See how advertising and marketing management are integrated into projects
- Review the elements and components required for professionals to develop innovative skills and abilities
- Treat and manage talent as a fundamental part of digital and video game company capital
- Work on and give a detailed review of the innovative business models being implemented in the industry
- Know the skills, knowledge and competencies in financial and economic analysis
- Acquire a high level of financial knowledge in business
- Work on the most relevant aspects of the financial system
- Delve into all the sections that make up the economic and financial system of digital and video game companies
- Acquire commercial skills
- Correctly perform actions aimed at the marketing and sale of products or services
- Implement and learn how sales and marketing management work in order to apply the most up-to-date techniques
- Learn and understand how to manage esports events, championships and conventions
- Understand the two most relevant entities in *esports:* The Player and The Club





- Thoroughly comprehend different business models that can be used in eSports management, as well as the most relevant aspects involved in holding events and championships or in sponsorship and advertising management
- Propose *merchandising sales strategies*
- Apply Influencer Marketing in a profitable way
- Acquire leadership competencies and skills
- Work on talent management skills by means of analyzing and developing Human Resources processes
- Become familiar with Soft Skills in detail
- Develop pragmatic leadership

Improve your management and leadership skills thanks to this program, whose multi-perspective approach will help you gain in-depth knowledge of the processes involved in developing a project in this industry"

04

Course Management

To benefit from an effective learning process in an area as complex and changing as that of video games, you need a high-level teaching staff that knows all the ins and outs of the industry. For this reason, TECH has selected the best professors in the field, who will provide students with its latest developments so they can apply them to their own business projects.

A prestigious teaching staff will provide you with all the keys to business success in the video game industry"

Management

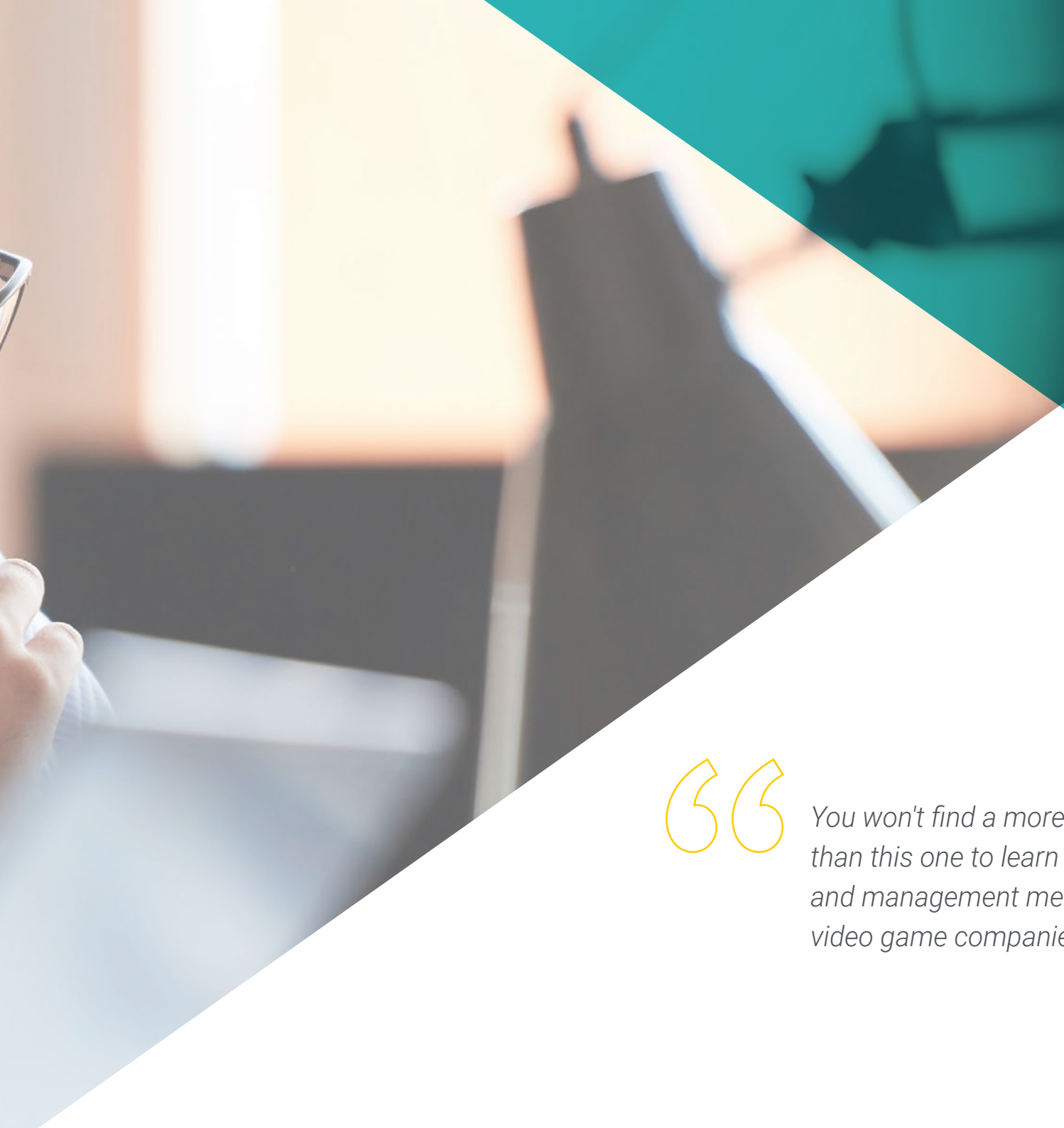
Mr. Moreno Campos, Daniel

- Chief Operations Officer in Marshals
- Tutor in Edix (UNIR)
- Product Owner Certification–Associate Professor at ESIC Business & Marketing School
- Professor in Boluda.com
- Project Manager Officer in Sum- The Sales Intelligence Company
- Content Manager at GroupM (WPP)

05

Structure and Content

This Advanced Master's Degree in Senior Management in Video Game Companies is structured in 20 specialized modules and will allow professionals to learn about the latest developments in issues such as digital marketing and digital transformation in video games, video game engines, new online distribution models, the life cycle of video game projects or business models in video game innovation, among many others.



You won't find a more complete program than this one to learn the best entrepreneurial and management methods employed by video game companies"

Module 1. Graphic and Artistic Expression

1.1. Drawing and Perspective
- 1.1.1. The Freehand Drawing or Sketch. The Importance of Sketching
- 1.1.2. Perspective and Methods of Spatial Representation
- 1.1.3. Proportions and Fitting Methods: The Human Figure
- 1.1.4. Proportions and Fitting Methods: The Animal Figure

1.2. Lights and Color
- 1.2.1. Chiaroscuro: Light and Shade
- 1.2.2. Color Theory and Painting: How Is Color Perceived?
- 1.2.3. Plastic Tools for the Creation of Contrasts
- 1.2.4. Color Harmony. Types of Color Harmony

1.3. Textures and Movement
- 1.3.1. Textures and Material Rendering Methods
- 1.3.2. Textured Artwork Analysis
- 1.3.3. Representation of Actions and Movement
- 1.3.4. Moving Artwork Analysis

1.4. Composition
- 1.4.1. Structural Aspects of the Image: The Point, the Line and the Plane
- 1.4.2. Gestalt Laws
- 1.4.3. Formal Operations: Development of Shape from Concepts
- 1.4.4. Rhythm, Structure, Scale, Symmetry, Balance, Tension, Attraction, and Clustering
- 1.4.5. Patterns

1.5. Approach to the Digital Iconographic Environment
- 1.5.1. Introduction
- 1.5.2. Verification of the Generative Scope of the Digital Iconography
- 1.5.3. Adoption of New Digital Iconographic Archetypes
- 1.5.4. Aesthetics and Function as Concepts Derived from the Use of the Machine

1.6. Analysis of Digital Graphic Resources. Synthesis Image
- 1.6.1. Digital Iconographic Typologies: Recycled and Synthetic Images
- 1.6.2. Digital Graphic File Formats
- 1.6.3. Two-Dimensional Shapes. Analysis of Software for Image Creation and Retouching
- 1.6.4. Three-Dimensional Shapes. Analysis of Software for the Creation of Volumetric Structures
- 1.6.5. 3D Graphic Structures. Introduction. Wire Structures
- 1.6.6. Devices for Visualization and Interaction with Multimedia Applications
- 1.6.7. Terminology Assigned to the Sector where the Digital Image is Framed

1.7. Digital Artistic Expression: Graphics in Adobe Photoshop
- 1.7.1. Installation and Introduction to Adobe Photoshop
- 1.7.2. Basic Adobe Photoshop Tools
- 1.7.3. Analyzing and Learning Adobe Photoshop
- 1.7.4. Use of the Digital Tool in Graphic Works for the Creation of Video Games

1.8. Scenarios and Atmosphere for Video Games
- 1.8.1. Cartoon Scenarios and Atmosphere
- 1.8.2. Compositional Analysis
- 1.8.3. Realistic Scenarios and Atmosphere
- 1.8.4. Compositional Analysis

1.9. Characters for Video Games
- 1.9.1. Cartoon Characters
- 1.9.2. Compositional Analysis
- 1.9.3. Realistic Characters
- 1.9.4. Compositional Analysis

1.10. Presenting a Professional Portfolio
- 1.10.1. Approach
- 1.10.2. Methodology
- 1.10.3. Document Creation Software
- 1.10.4. Analytical Study of Professional Portfolios

Module 2. 2D Animation

2.1. What is Animation?
- 2.1.1. History of Animation
- 2.1.2. Animation Pioneers
- 2.1.3. 2D and 3D Animation
- 2.1.4. Is it Necessary to Know How to Draw?

2.2. The Animator and Its Role in the Production
- 2.2.1. Positions in the Department: Junior, Mid, Senior
- 2.2.2. Animator Lead, Supervisor and Director
- 2.2.3. Supervisory Steps in a Production
- 2.2.4. Quality Criteria

2.3. Physical Laws
- 2.3.1. Push
- 2.3.2. Friction
- 2.3.3. Severity
- 2.3.4. Inertia

2.4. Animation Tools
- 2.4.1. Timeline
- 2.4.2. Dope Sheet
- 2.4.3. Curve Editor
- 2.4.4. Use of Rigs

2.5. Animation Methodology
- 2.5.1. Graph Editor: Curves and Types
- 2.5.2. Timing and Spacing
- 2.5.3. Overshoots
- 2.5.4. Stepped and Spline
- 2.5.5. Parents and Constraints
- 2.5.6. Charts and Inbetweens
- 2.5.7. Extreme Poses and Breakdowns

2.6. The 12 Principles of Animation
- 2.6.1. Timing
- 2.6.2. Squash and Stretch
- 2.6.3. Slow In and Slow Out
- 2.6.4. Anticipation
- 2.6.5. Overlap
- 2.6.6. Arcs
- 2.6.7. Pose to Pose and Straight Ahead
- 2.6.8. Pose
- 2.6.9. Secondary Action
- 2.6.10. Staging
- 2.6.11. Exaggeration
- 2.6.12. Appeal

2.7. Anatomical Knowledge and its Function
- 2.7.1. Human Anatomy
- 2.7.2. Animal Anatomy
- 2.7.3. Anatomy of Cartoon Characters
- 2.7.4. Breaking the Rules

2.8. Posing and Silhouettes
- 2.8.1. Importance of Location
- 2.8.2. Importance of the Pose
- 2.8.3. Importance of the Silhouettes
- 2.8.4. Final Result. Compositional Analysis

2.9. Exercise: Ball
- 2.9.1. Shape
- 2.9.2. Timing
- 2.9.3. Spacing
- 2.9.4. Weight

2.10. Exercise: Basic Cycles and Body Dynamics
- 2.10.1. Walking Cycle
- 2.10.2. Walking Cycle with Personality
- 2.10.3. Running Cycle
- 2.10.4. Parkour
- 2.10.5. Pantomime

Module 3. Motion Graphics

3.1. Introduction to After Effects
- 3.1.1. What After Effects Are and Their Use: Illustrative Examples
- 3.1.2. Project and Interface Settings
- 3.1.3. Composition Settings, Brushes and Windows
- 3.1.4. Definition of Workflow: Creating Basic Projects
- 3.1.5. Preliminary Video Issues
- 3.1.6. Color Depth, Display Formats, Audio and Video Compression

3.2. After Effects Basics
- 3.2.1. Import
- 3.2.2. Basic Tools: Layer Types and Options
- 3.2.3. Transformation Properties and Origin of Coordinates
- 3.2.4. H.264 Basic Export

3.3. Brushes and 3D Space
- 3.3.1. Brush Panels and Paint Effect
- 3.3.2. Eraser, Cloning Brush, Rotoscoping Brush
- 3.3.3. Activate 3D Space: Views for 3D Working
- 3.3.4. Material and Processing Properties
- 3.3.5. Lights and Cameras: Camera Control
- 3.3.6. Unified Camera Tool: Customized View
- 3.3.7. 3D Text: Text Extrusion: Raytracing
- 3.3.8. Vanishing Point and Camera Projection

3.4. Text and Transparencies
- 3.4.1. Text Tool
- 3.4.2. Layer Styles
- 3.4.3. Animators, Ranges and Selectors
- 3.4.4. Text Animation Presets
- 3.4.5. Alpha Channel: Alpha Mates and Transparency Preservation
- 3.4.6. Transfer Control Panel: Track Mate, Blending Modes, Preserve Underlying Transparency
- 3.4.7. Luminance Inlays

3.5. Masks and Shape Layers
- 3.5.1. Masks Creation and Edition Tools
- 3.5.2. Shape Layers
- 3.5.3. Convert Text and Graphics to Shape Layers or Masks
- 3.5.4. Masks as Trajectories
- 3.5.5. Effects that Work with Masks: Streaks and Doodles

3.6. Animation
- 3.6.1. Keyframes: Types
- 3.6.2. Trajectories
- 3.6.3. Curve Graph
- 3.6.4. Convert Audio to Keyframes
- 3.6.5. Parenting and Pre-Comps
- 3.6.6. Alternative Animation Techniques: Loops, Layer Sequencing, Free Transform Tool, Motion Sketch, Slider
- 3.6.7. Time Remapping

3.7. Effects and Chroma Key
- 3.7.1. Effects Application
- 3.7.2. Examples of Effects
- 3.7.3. Color Correction
- 3.7.4. Chroma Key: Keylight

3.8. Stabilization
- 3.8.1. Classic Stabilizer
- 3.8.2. Deformation Stabilizer
- 3.8.3. Tracking Options
- 3.8.4. Position, Rotation and Scale Stabilization

3.9. Tracking and Expressions
- 3.9.1. Position and Rotation Tracking: Perspectives
- 3.9.2. Tracing with Solids, Adjustment Layers and Null Objects
- 3.9.3. Track 3D: Embedding Logos, Text or Images in 3D Spaces
- 3.9.4. Mocha AE
- 3.9.5. Expressions: Time
- 3.9.6. Expressions: Loop out
- 3.9.7. Expressions: Wiggle

3.10. Export
- 3.10.1. Export Settings: Most Common Formats and Codecs for Editing and Viewing I
- 3.10.2. Export Settings: Most Common Formats and Codecs for Editing and Viewing II
- 3.10.3. Export Settings: Most Common Formats and Codecs for Editing and Viewing III
- 3.10.4. Saving Complete Projects: Collect Files and Backups

Module 4. 3D Art

4.1. Advanced Art
- 4.1.1. From Concept Art to 3D
- 4.1.2. 3D Model Principles
- 4.1.3. Types of Modeling: Organic / Inorganic

4.2. 3D Max Interface
- 4.2.1. 3D Max Software
- 4.2.2. Basic Interface
- 4.2.3. Scene Organization

4.3. Inorganic Modeling
- 4.3.1. Modeling with Primitives and Deformers
- 4.3.2. Editable Polygon Modeling
- 4.3.3. Modeling with Graphite

4.4. Organic Model
- 4.4.1. Character Modeling I
- 4.4.2. Character Modeling II
- 4.4.3. Character Modeling III

4.5. Creation of UVs
- 4.5.1. Basic Materials and Maps
- 4.5.2. Unwrapping and Texture Projections
- 4.5.3. Retopology

4.6. Advanced 3D
- 4.6.1. Creation of Texture Atlas
- 4.6.2. Hierarchies and Bone Creation
- 4.6.3. Application of a Skeleton

4.7. Animation Systems
- 4.7.1. Biped
- 4.7.2. CAT
- 4.7.3. Own Rigging

4.8. Facial Rigging
- 4.8.1. Expressions
- 4.8.2. Restrictions
- 4.8.3. Controllers

4.9. Principles of Animation
- 4.9.1. Cycles
- 4.9.2. Libraries and Use of MoCap Motion Capture Files
- 4.9.3. Motion Mixer

4.10. Export to Engines
- 4.10.1. Export to Unity Engine
- 4.10.2. Models Export
- 4.10.3. Animation Export

Module 5. 3D Design

5.1. 3D in Video Games, Why is it Important?
- 5.1.1. History of Computer 3D
- 5.1.2. Implementation of 3D in Video Games
- 5.1.3. Techniques for 3D Optimization in Video Games
- 5.1.4. Interaction between Graphics Software and Game Engines

5.2. 3D Modeling: Maya
- 5.2.1. Maya's Philosophy
- 5.2.2. Maya's Capabilities
- 5.2.3. Projects Carried out with Autodesk Maya
- 5.2.4. Introduction to Modeling Tools, Rigging, Texturing, etc.

5.3. 3D Modeling: Blender
- 5.3.1. Blender's Philosophy
- 5.3.2. Past, Present and Future
- 5.3.3. Projects Made with Blender
- 5.3.4. Blender Cloud
- 5.3.5. Introduction to Modeling Tools, Rigging, Texturing, etc.

5.4. 3D Modeling: ZBrush
- 5.4.1. Zbrush Philosophy
- 5.4.2. Integrating ZBrush into Production Pipelines
- 5.4.3. Advantages and Disadvantages Compared to Blender
- 5.4.4. Analysis of Designs Made in ZBrush

5.5. 3D Texturing: Substance Designer
- 5.5.1. Introduction to Substance Designer
- 5.5.2. Substance Designer Philosophy
- 5.5.3. Substance Designer in Video Game Production
- 5.5.4. Substance Designer and Substance Painter Interaction

5.6. 3D Texturing: Substance Painter
- 5.6.1. What Is Substance Painter Used For?
- 5.6.2. Substance Painter and its Standardization
- 5.6.3. Substance Painter in Stylized Texturing
- 5.6.4. Substance Painter in Realistic Texturing
- 5.6.5. Analysis of Textured Models

5.7. 3D Texturing: Substance Alchemist
- 5.7.1. What is Substance Alchemist?
- 5.7.2. Substance Alchemist Workflow
- 5.7.3. Alternatives to Substance Alchemist
- 5.7.4. Examples of Projects

5.8. Rendering: Texture Mapping and Baking
- 5.8.1. Introduction to Texture Mapping
- 5.8.2. UVs Mapping
- 5.8.3. Optimization of UVs
- 5.8.4. UDIMs
- 5.8.5. Integration with Texturing Software

5.9. Rendering: Advanced Lighting
- 5.9.1. Lighting Techniques
- 5.9.2. Contrast Balance
- 5.9.3. Color Balance
- 5.9.4. Lighting in Video Games
- 5.9.5. Resource Optimization
- 5.9.6. Pre-Rendered Lighting vs. Real-Time Lighting

5.10. Rendering: Scenes, Render Layers and Passes
- 5.10.1. Use of Scenes
- 5.10.2. Render Layers Utility
- 5.10.3. Passes Utility
- 5.10.4. Integrating Passes into Photoshop

Module 6. Computer Graphics

6.1. Computer Graphics Overview
- 6.1.1. Computer Graphics Applications and Uses
- 6.1.2. Computer Graphics History
- 6.1.3. Basic Algorithms for 2D Graphics
- 6.1.4. 3D Transformations: Projections and Perspectives

6.2. Mathematical and Physical Basis for Simulations and Textures
- 6.2.1. Light Rays
- 6.2.2. Absorption and *Scattering*
- 6.2.3. Specular and Diffuse Reflection
- 6.2.4. Color
- 6.2.5. Bidirectional Reflectance Distribution Function (BRDF) Color
- 6.2.6. Energy Conservation and Fresnel F0 Effect
- 6.2.7. Key Features of Physically Based Rendering (PBR)

6.3. Image Representation: Nature and Format
- 6.3.1. Presentation: Theoretical Basis
- 6.3.2. Digital Image Size: Resolution and Color
- 6.3.3. Uncompressed Image Formats
- 6.3.4. Compressed Image Formats
- 6.3.5. Color Spaces
- 6.3.6. Levels and Curves

6.4. Image Representation: Texture
- 6.4.1. Procedural Textures
- 6.4.2. Quixel Megascans: Texture Scanning
- 6.4.3. Texture Baking
- 6.4.4. Normal Mapping and Displacement
- 6.4.5. Albedo, Metallic and Roughness Maps

6.5. Scene Rendering: Visualization and Lighting
- 6.5.1. Light Direction
- 6.5.2. Contrast
- 6.5.3. Saturation
- 6.5.4. Color
- 6.5.5. Direct and Indirect Light
- 6.5.6. Hard and Soft Light
- 6.5.7. Importance of Shadows: Basic Rules and Types

6.6. Rendering Hardware Evolution and Performance
- 6.6.1. The 1970s: 3D Modeling and Rendering Software First Arrives on the Scene
- 6.6.2. Architectural Orientation
- 6.6.3. The 1990s: Current 3D Software Development
- 6.6.4. 3D Printing
- 6.6.5. VR Equipment for 3D Visualization

6.7. 2D Graphics Software Analysis
- 6.7.1. Adobe Photoshop
- 6.7.2. Gimp
- 6.7.3. Krita
- 6.7.4. Inkscape
- 6.7.5. Pyxel Edit

6.8. 3D Modeling Software Analysis
- 6.8.1. Autodesk Maya
- 6.8.2. Cinema 4D
- 6.8.3. Blender
- 6.8.4. ZBrush
- 6.8.5. SketchUp
- 6.8.6. Computer-Aided Design (CAD) Software

6.9. 3D Texturing Software Analysis
- 6.9.1. Procedural Texturing in Maya
- 6.9.2. Procedural Texturing in Blender
- 6.9.3. Baking
- 6.9.4. Substance Painter and Substance Designer
- 6.9.5. ArmorPaint

6.10. 3D Texturing Software Analysis
- 6.10.1. Arnold
- 6.10.2. Cycles
- 6.10.3. Vray
- 6.10.4. IRay
- 6.10.5. Real-Time Rendering: Marmoset Toolbag

Module 7. Video Game Engines

7.1. Video Games and Information Communication Technology (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

7.4. Motor Game Maker
- 7.4.1. Introduction
- 7.4.2. Scenario 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-Oriented Design and Composition
- 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. Community Use: Audiovisual Content and Video Games
- 7.10.4. Future of Source 2 Engine
- 7.10.5. Successful Mods and Games

Module 8. Character Design and Animation

8.1. Why is Aesthetics and Character Design so Important in Video Games?
- 8.1.1. Design with Personality
- 8.1.2. Sources of Inspiration. Referencing is not Plagiarism
- 8.1.3. Filtering Reality
- 8.1.4. Adopt your Own Style

8.2. 2D Phase: Alternative Use of Software or Hand Drawing
- 8.2.1. Quick Sketch
- 8.2.2. Cleanup
- 8.2.3. Color
- 8.2.4. Introduction

8.3. 2D Phase: Part I
- 8.3.1. Archetypes
- 8.3.2. Personality
- 8.3.3. Style
- 8.3.4. Basic Geometry
- 8.3.5. Proportions and Anatomy
- 8.3.6. Teamwork

8.4. 2D Phase: Part II
- 8.4.1. Color Palettes
- 8.4.2. Illumination and Contrast
- 8.4.3. Level of Detail
- 8.4.4. Adaptation to 2D Pipeline

8.5. 3D Modeling Phase: Concepts and 3D Pipelines
- 8.5.1. Modeling Adapted to Production
- 8.5.2. Modeling for an Audiovisual Project
- 8.5.3. Modeling for an Interactive Project
- 8.5.4. 3D Pipeline: Phases

8.6. 3D Modeling Phase: Introduction to Blender
- 8.6.1. Navigation
- 8.6.2. Outliner and Viewport: Workbench Render
- 8.6.3. Concept of Vertex, Edge and Face
- 8.6.4. Concept of Normal
- 8.6.5. Loops

8.7. 3D Modeling Phase: Basic Notions of Modeling
- 8.7.1. Extrude Tool
- 8.7.2. Bevel Tool
- 8.7.3. Apply Transformations
- 8.7.4. Knife Tool
- 8.7.5. Other Useful Tools

8.8. 3D Modeling Phase: Topology
- 8.8.1. Edge Loops
- 8.8.2. Face Loops
- 8.8.3. Low-Poly vs. High-Poly
- 8.8.4. Flow of Shapes
- 8.8.5. Quads vs. Tris

8.9. 3D Modeling Phase: Textures, Materials and UV Mapping
- 8.9.1. Introduction to Nodes in Blender
- 8.9.2. Basic Procedural Texture Creation
- 8.9.3. Application of Materials
- 8.9.4. UVs, What Are They?
- 8.9.5. Utility of UV Mapping
- 8.9.6. Avoid Stretching in UV Mapping and Optimization

8.10. 3D Phase: Introduction to Animation
- 8.10.1. AutoKey
- 8.10.2. Insert Keys
- 8.10.3. Animation Curves: Graph Editor
- 8.10.4. Interpolation Modes

Module 9. Animation and Simulation

9.1. Introduction: Physics and Mathematics Behind the Simulation
- 9.1.1. Concepts Applied to Simulation
- 9.1.2. Collisions, Volume Calculation
- 9.1.3. Computing Time
- 9.1.4. Prerendered vs. Real-Time Calculations

9.2. Methodology
- 9.2.1. Emitter
- 9.2.2. Collisions
- 9.2.3. Fields
- 9.2.4. Breakage

9.3. Rigid Body Dynamics
- 9.3.1. Basic Concepts of Movement
- 9.3.2. Force Management
- 9.3.3. Interaction Between Objects
- 9.3.4. Collisions

9.4. Non-Rigid Body Dynamics
- 9.4.1. Fluid Simulation
- 9.4.2. Smoke Simulation
- 9.4.3. Effective Volume
- 9.4.4. Real-Time Non-Rigid Body Simulation

9.5. Clothing Simulation
- 9.5.1. Marvelous Designer
- 9.5.2. Clothing Pattern References
- 9.5.3. Wrinkles: Sculpted Clothing to Save Resources
- 9.5.4. Blender: ClothBrush

9.6. Hair Simulation
- 9.6.1. Types of Particle SiSs
- 9.6.2. Technologies for Hair Simulation
- 9.6.3. Particles vs. Mesh
- 9.6.4. Resource Consumption

9.7. Motion Capture
- 9.7.1. Motion Capture Technologies
- 9.7.2. Motion Capture Refinement
- 9.7.3. Application of Motion Capture to Audiovisual and Interactive Projects
- 9.7.4. Mixamo

9.8. Motion Capture Software
- 9.8.1. Kinect
- 9.8.2. Implementation of Kinect in Video Games
- 9.8.3. Refinement Technologies
- 9.8.4. Other Motion Capture Software

9.9. Facial Capture
- 9.9.1. FaceRig
- 9.9.2. MocapX
- 9.9.3. Advantages and Disadvantages of the Facial Capture
- 9.9.4. Facial Capture Refinement

9.10. Future Technologies: Artificial Intelligence
- 9.10.1. Artificial Intelligence in Animation: Cascadeur
- 9.10.2. Artificial Intelligence in Simulation
- 9.10.3. Future: Potential Alternatives
- 9.10.4. Current Case Studies

Module 10. Character Rigging

10.1. Rigger Functions: Rigger Knowledge Types of Rig
- 10.1.1. What Is a Rigger?
- 10.1.2. Rigger Functions
- 10.1.3. Rigger Knowledge
- 10.1.4. Types of Rig
- 10.1.5. Blender Rigging Facilities
- 10.1.6. First Contact with Bones and Constraints

10.2. Bone Chains and Bone Parenting. FK and IK Differences and Restrictions
- 10.2.1. Bone Chains
- 10.2.2. Bone Parenting
- 10.2.3. FK and IK Chain

10.2.4. Differences between FK and IK
10.2.5. Use of Restrictions
10.3. Human Skeleton and Facial Rig: Shape Keys
10.3.1. Human Skeleton
10.3.2. Advanced Human Skeleton
10.3.3. Facial Rig
10.3.4. Shape Keys
10.4. Vertex Weighing. Complete Weighing of a Character and Creation of a Pose
10.4.1. Weighing System
10.4.2. Character Weighting: Face
10.4.3. Character Weighting: Body
10.4.4. Use of Pose Mode
10.5. Character Rig: IK-FK Column System
10.5.1. Bone Location and Parenting
10.5.2. FK Systems
10.5.3. IK Systems
10.5.4. Other Options
10.5.5. Controls
10.6. Character Rig: IK-FK Arm System
10.6.1. Bone Location and Parenting
10.6.2. FK Systems
10.6.3. IK Systems
10.6.4. Other Options
10.6.5. Controls
10.7. Character Rig: IK-FK Hand System
10.7.1. Bone Location and Parenting
10.7.2. FK Systems
10.7.3. IK Systems
10.7.4. Other Options
10.7.5. Controls

10.8. Character Rig: IK-FK Leg System
- 10.8.1. Bone Location and Parenting
- 10.8.2. FK Systems
- 10.8.3. IK Systems
- 10.8.4. Other Options
- 10.8.5. Controls

10.9. Facial
- 10.9.1. Facial Settings
- 10.9.2. Use of Shape Keys
- 10.9.3. Use of Buttons
- 10.9.4. Eye Configuration
- 10.9.5. Squash and Head Stretch

10.10. Corrections of Facial Shape and Setup
- 10.10.1. Shape Corrections
- 10.10.2. Pose Mode
- 10.10.3. Easy Weighing
- 10.10.4. Getting the Rig Ready for Production

Module 11. Strategy in Digital and Video Game Companies

11.1. Digital and Video Games Businesses
- 11.1.1. Components of Strategy
- 11.1.2. Digital Ecosystem and Video Games
- 11.1.3. Strategic Positioning

11.2. The Strategic Process
- 11.2.1. Strategic Analysis
- 11.2.2. Selection of Alternative Strategies
- 11.2.3. Strategy Implementation

11.3. Strategic Analysis
- 11.3.1. Internal
- 11.3.2. External
- 11.3.3. SWOT and CAME Matrix

11.4. Sectorial Analysis of Videogames
- 11.4.1. Porter's 5 Forces Model
- 11.4.2. PESTEL Analysis
- 11.4.3. Sectorial Segmentation

11.5. Competitive Position Analysis
- 11.5.1. Create and Monetize a Strategic Value
- 11.5.2. Niche Search vs. Market Segmentation
- 11.5.3. Sustainability of Competitive Positioning

11.6. Economic Environment Analysis
- 11.6.1. Globalization and Internationalization
- 11.6.2. Investment and Savings
- 11.6.3. Production, Productivity and Employment Indicators

11.7. Strategic Management
- 11.7.1. A Framework for Strategy Analysis
- 11.7.2. Analysis of the Sectoral Environment, Resources and Capabilities
- 11.7.3. Putting the Strategy into Practice

11.8. Strategy Formulation
- 11.8.1. Corporate Strategies
- 11.8.2. Generic Strategies
- 11.8.3. Client Strategies

11.9. Strategy Implementation
- 11.9.1. Strategic Planning
- 11.9.2. Communication and Organizational Participation Scheme
- 11.9.3. Change Management

11.10. New Strategic Businesses
- 11.10.1. Blue Oceans
- 11.10.2. Exhaustion of the Incremental Improvement in the Value Curve
- 11.10.3. Zero Marginal Cost Businesses

Module 12. Video Game Company Management

12.1. Industry and Value Chain
- 12.1.1. Value in the Training Sector
- 12.1.2. Elements of the Value Chain
- 12.1.3. Relationship between Each of the Elements in the Value Chain

12.2. Video Game Developers
- 12.2.1. Conceptual Proposals
- 12.2.2. Creative Design and Video Game Storylines
- 12.2.3. Technology Applied to Video Game Development

12.3. Console Manufacturing
- 12.3.1. Components.
- 12.3.2. Types and Manufacturers
- 12.3.3. Console Generation

12.4. *Publishers*
- 12.4.1. Selection
- 12.4.2. Development Management
- 12.4.3. Product and Service Creation

12.5. Distributors
- 12.5.1. Agreements With Distributors
- 12.5.2. Distribution Models
- 12.5.3. Distribution Logistics

12.6. Retailers
- 12.6.1. Retailers
- 12.6.2. Orientation and Link With the Consumer
- 12.6.3. Assessment Services

12.7. Accessories Manufacturers
- 12.7.1. *Gaming* Accessories
- 12.7.2. Market
- 12.7.3. Tendencies

12.8. Middleware Developers
- 12.8.1. Middleware in the Video Game Industry
- 12.8.2. Middleware Development
- 12.8.3. Middleware Typology

12.9. Professional Profiles in the Video Game Industry
- 12.9.1. Game Designers and Programmers
- 12.9.2. Modelers and Texturizers
- 12.9.3. Animators and Illustrators

12.10. Professional eSports Clubs
- 12.10.1. Administrative Department
- 12.10.2. Sports Department
- 12.10.3. Communication Department

Module 13. Digital Marketing and Digital Transformation of Video Games

13.1. Digital Marketing Strategy
- 13.1.1. Customer Centric
- 13.1.2. Customer Journey and Marketing Funnel
- 13.1.3. Design and Creation of a Digital Marketing Plan

13.2. Digital Assets
- 13.2.1. Architecture and Web Design
- 13.2.2. User Experience- CX
- 13.2.3. Mobile Marketing

13.3. Digital Media
- 13.3.1. Strategy and Planning Media
- 13.3.2. Display and Advertising Graphics
- 13.3.3. Digital TV

13.4. Search
- 13.4.1. Development and Application of a Search Strategy
- 13.4.2. SEO
- 13.4.3. SEM

13.5. Social Media
- 13.5.1. Design, Planning and Analytics in a Social Media Strategy
- 13.5.2. Marketing Techniques on Horizontal Social Media
- 13.5.3. Marketing Techniques on Vertical Social Media

13.6. Inbound Marketing
- 13.6.1. Inbound Marketing Funnels
- 13.6.2. Content Marketing Generation
- 13.6.3. Leads Acquisition and Management

13.7. Account Based Marketing
- 13.7.1. B2B Marketing Strategy
- 13.7.2. Decision Makers and Contact Maps
- 13.7.3. Account Based Marketing Plan

13.8. E-mail Marketing and Landing Pages
- 13.8.1. Characteristics of Email Marketing
- 13.8.2. Creativity and Landing Pages
- 13.8.3. Email Marketing Campaigns and Actions

13.9. Automization of Marketing
- 13.9.1. Marketing Automation
- 13.9.2. Big Data and AI Applied to Marketing
- 13.9.3. Main Solutions in Marketing Automation

13.10. Metrics, KPIs and ROI
- 13.10.1. Principle Metrics and KPIs in Digital Marketing
- 13.10.2. Solutions and Measuring Tools
- 13.10.3. ROI Calculation and Tracking

Module 14. Video Game Company Formation

14.1. Entrepreneurship
- 14.1.1. Entrepreneurial Strategy
- 14.1.2. Entrepreneurship Projects
- 14.1.3. Agile Methodologies in Entrepreneurship

14.2. Technological Innovations in Video Games
- 14.2.1. Innovations in Consoles and Related Peripherals
- 14.2.2. Innovation in Motion Capture and Live Dealer
- 14.2.3. Innovation in Graphics and Software

14.3. The Business Plan
- 14.3.1. Segments and Value Proposition
- 14.3.2. Processes, Resources and Key Alliances
- 14.3.3. Customer Relations and Interaction Channels

14.4. Investments
- 14.4.1. Investments in the Video Game Industry
- 14.4.2. Critical Aspects to Capture Investments
- 14.4.3. Financing Startups

14.5. Finances
- 14.5.1. Revenues and Efficiencies
- 14.5.2. Operative Costs and Capital
- 14.5.3. Income Statement and Balance Sheet

14.6. Video Game Production
- 14.6.1. Production Simulation Tools
- 14.6.2. Planned Production Management
- 14.6.3. Production Control Management

14.7. Operations Management
- 14.7.1. Design, Localization and Maintenance
- 14.7.2. Quality Management
- 14.7.3. Inventory and Supply Chain Management

14.8. New Online Distribution Models
- 14.8.1. Online Logistics Models
- 14.8.2. Direct Online Delivery and SaaS
- 14.8.3. Dropshipping

14.9. Sustainability
- 14.9.1. Creating Sustainable Value
- 14.9.2. ESG (Environmental, Social and Governance)
- 14.9.3. Sustainability in Strategy

14.10. Legal Aspects
- 14.10.1. Intellectual Property
- 14.10.2. Industrial Property
- 14.10.3. RGDP

Module 15. Project Management

15.1. Video Game Project Life Cycle
- 15.1.1. Conceptual and Preproduction Phase
- 15.1.2. Production Phase and Final Phases
- 15.1.3. Post-production Phase

15.2. Video Game Projects
- 15.2.1. Genre
- 15.2.2. Serious Games
- 15.2.3. Subgenre and New Genres

15.3. Video Game Project Architecture
- 15.3.1. Internal Architecture
- 15.3.2. Relationship Between Elements
- 15.3.3. Holistic Vision of Video Games

15.4. Video Games
- 15.4.1. Recreational Aspects in Video Games
- 15.4.2. Video Game Design
- 15.4.3. Gamification

15.5. Video Game Technology
- 15.5.1. Internal Elements
- 15.5.2. Video Game Engines
- 15.5.3. Influence of Technology and Marketing on Design

15.6. Project Conception, Launch and Execution
- 15.6.1. Early Development
- 15.6.2. Phases of Video Game Development
- 15.6.3. Involvement of the Consumer in the Development

15.7. Video Game Project Management
- 15.7.1. Development Teams and Publishers
- 15.7.2. Operations Teams
- 15.7.3. Sales and Marketing Teams

15.8. Manual for the Development of Video Games
- 15.8.1. Design and Technology Manual of Video Games
- 15.8.2. Video Games Development Manual
- 15.8.3. Requirements Manual and Technical Specifications

15.9. Video Game Publishing and Marketing
- 15.9.1. Preparing Video Game Kick Off
- 15.9.2. Digital Communication Channels
- 15.9.3. Delivery, Progress and Success Monitoring

15.10. Agile Methodologies Applicable to Video Game Projects
- 15.10.1. Design and Visual Thinking
- 15.10.2. Lean Startups
- 15.10.3. Scrum Development and Sales

Module 16. Innovation

16.1. Innovation and Strategy
- 16.1.1. Innovation in Video Games
- 16.1.2. Innovation Management in Video Games
- 16.1.3. Innovation Models

16.2. Innovative Talent
- 16.2.1. Implementing an Innovation Culture in Organizations
- 16.2.2. Talent
- 16.2.3. Innovation Culture Map

16.3. Talent Management in Digital Economy
- 16.3.1. Talent Life Cycle
- 16.3.2. Recruitment: Generational Constraints
- 16.3.3. Retention: Engagement, Loyalty, Evangelists

16.4. Business Models in Video Game Innovation
- 16.4.1. Innovation in Business Models
- 16.4.2. Innovation Tools in Business
- 16.4.3. Business Model Navigator

16.5. Innovation Project Management
- 16.5.1. Customers and Innovation Processes
- 16.5.2. Value Proposition Design
- 16.5.3. Exponential Organizations

16.6. Agile Methodologies in Innovation
- 16.6.1. Design Thinking and Lean Startup Methodologies
- 16.6.2. Agile Project Management Models: Kanban and Scrum
- 16.6.3. Lean Canvas

16.7. Innovation Validation Management
- 16.7.1. Prototyping (PMV)
- 16.7.2. Customer Validation
- 16.7.3. Pivot or Persevere

16.8. Innovation in Processes
- 16.8.1. Process Innovation Opportunities
- 16.8.2. Time-to-Market, Reduction Non-Value Tasks and Defect Elimination
- 16.8.3. Methodological Tools for Process Innovation

16.9. Disruptive Technologies
- 16.9.1. Hybrid Physical-Digital Technologies
- 16.9.2. Technologies in Communication and Data Handling
- 16.9.3. Application Technologies in Management

16.10. Return on Investment in Innovation
- 16.10.1. Data Monetization Strategies and Innovation Assets
- 16.10.2. The ROI of Innovation General Focus
- 16.10.3. Funnels

Module 17. Financial Management

17.1. Accounting
- 17.1.1. Accounting
- 17.1.2. Annual Accounts and Other Reports
- 17.1.3. Tangible Fixed Assets, Real Estate Investments and Intangible Assets

17.2. Financial Management
- 17.2.1. Financial Instruments
- 17.2.2. Corporate Finance and Financial Management
- 17.2.3. Finance for Entrepreneurs

17.3. Financial Statement Analysis
- 17.3.1. Financial Statements Analysis
- 17.3.2. Liquidity and Solvency Analysis
- 17.3.3. Treasury Management

17.4. Financial Transactions
- 17.4.1. Financial Transactions
- 17.4.2. Investment Management
- 17.4.3. Investment Selection Criteria

17.5. Financial System
- 17.5.1. Financial System
- 17.5.2. Structure and Functioning of the Financial System
- 17.5.3. Value Market

17.6. Management Control
- 17.6.1. Management Control
- 17.6.2. Responsibility Centers
- 17.6.3. Cost Systems

17.7. Budget Control
- 17.7.1. Budget Process
- 17.7.2. Budget Management and Organization
- 17.7.3. Budget Control

17.8. Treasury Management
- 17.8.1. Cash Management and Treasury Budget
- 17.8.2. Collecting Trade Receivables
- 17.8.3. Commercial Transaction Payments

17.9. Business Financing
- 17.9.1. Advantages, Disadvantages and Implications of Debt
- 17.9.2. Choosing a Company Capital Structure
- 17.9.3. Changes to Capital Structure

17.10. Valuation of Companies
- 17.10.1. Accounting Methods and Business Value
- 17.10.2. Assets and Debt
- 17.10.3. Business Valuation Diagnosis and Investor Presentation

Modules 18. Commercial Management

18.1. Commercial Organization Models
- 18.1.1. Commercial Departments
- 18.1.2. Commercial Department Tools
- 18.1.3. Sales Force

18.2. Commercial Objectives
- 18.2.1. Commercial planning
- 18.2.2. Forecasts and Budgets
- 18.2.3. Commercial Budgets

18.3. Commercial Forecasts
- 18.3.1. Commercial Department Cost Effectiveness
- 18.3.2. Sales Projections
- 18.3.3. Controlling Commercial Activity

18.4. New Relationship Models
- 18.4.1. Commercialization in New Business Models
- 18.4.2. Personalization as the Main Driver of Customer Relations

18.4.3. Developing Customer Experiences
18.5. Consultative Selling
18.5.1. Sales Psychology
18.5.2. Persuasive Communication
18.5.3. Sales Methods Introduction and Evolution
18.6. Sales Methods
18.6.1. Retail or B2C Sales
18.6.2. B2B External Sales
18.6.3. Online Sales
18.7. Digital Social Selling
18.7.1. Social selling
18.7.2. Social Attitude: Create a Network of Contacts
18.7.3. Attracting New Customers on Social Media
18.8. Digital Sales Methodologies
18.8.1. Main Agile Methodologies in Digital Sales
18.8.2. Scrum Sales, Neat Selling, Snap Selling, Spin Selling
18.8.3. Inbound Sales B2B and Account Based Marketing
18.9. Marketing Support in Commercial Departments
18.9.1. Marketing Management
18.9.2. The Value of Digital Marketing (B2C/B2B)
18.9.3. Marketing Mix Management in Commercial Departments
18.10. Organization and Planning of the Salesperson's Work
18.10.1. Sales Zones and Routes
18.10.2. Time Management and Management Meetings
18.10.3. Analysis and Decision Making

Module 19. eSports Management

19.1. eSports Industry
19.1.1. eSports
19.1.2. eSports Industry Players
19.1.3. The eSports Business Model and Marketplace
19.2. eSports Clubs Management
19.2.1. Importance of eSports Clubs
19.2.2. Creation of Clubs
19.2.3. eSports Club Management and Administration
19.3. eGamers Relationship
19.3.1. The Role of the Player
19.3.2. Player's Skills and Competencies
19.3.3. Players as Ambassadors of the Brand
19.4. Competitions and Events
19.4.1. Delivery in eSports: Competitions and Events
19.4.2. Event and Championship Management
19.4.3. Main Local, Regional, National and Global Championships
19.5. Sponsorship Management in eSports
19.5.1. Sponsorship Management in eSports
19.5.2. Types of Sponsorships in eSports
19.5.3. Sponsorship Agreements in eSports
19.6. Advertising Management in eSports
19.6.1. Advergaming: A New Advertising Format
19.6.2. Branded Content in eSports
19.6.3. eSports as a Communicative Strategy
19.7. Marketing in eSports Management
19.7.1. Owned Media Management
19.7.2. Paid Media Management
19.7.3. Special Focus on Social Media

19.8. Influencer Marketing
- 19.8.1. Marketing Influencer
- 19.8.2. Audience Management and Its Impact on eSports
- 19.8.3. Business Models in Influencer Marketing

19.9. Merchant
- 19.9.1. Sale of Services and Associated Products
- 19.9.2. Merchandizing
- 19.9.3. e-Commerce and Market Places

19.10. eSports Metrics and KPIs
- 19.10.1. Metrics
- 19.10.2. Progress and Success KPIs
- 19.10.3. Strategic Map for Objectives and Indicators

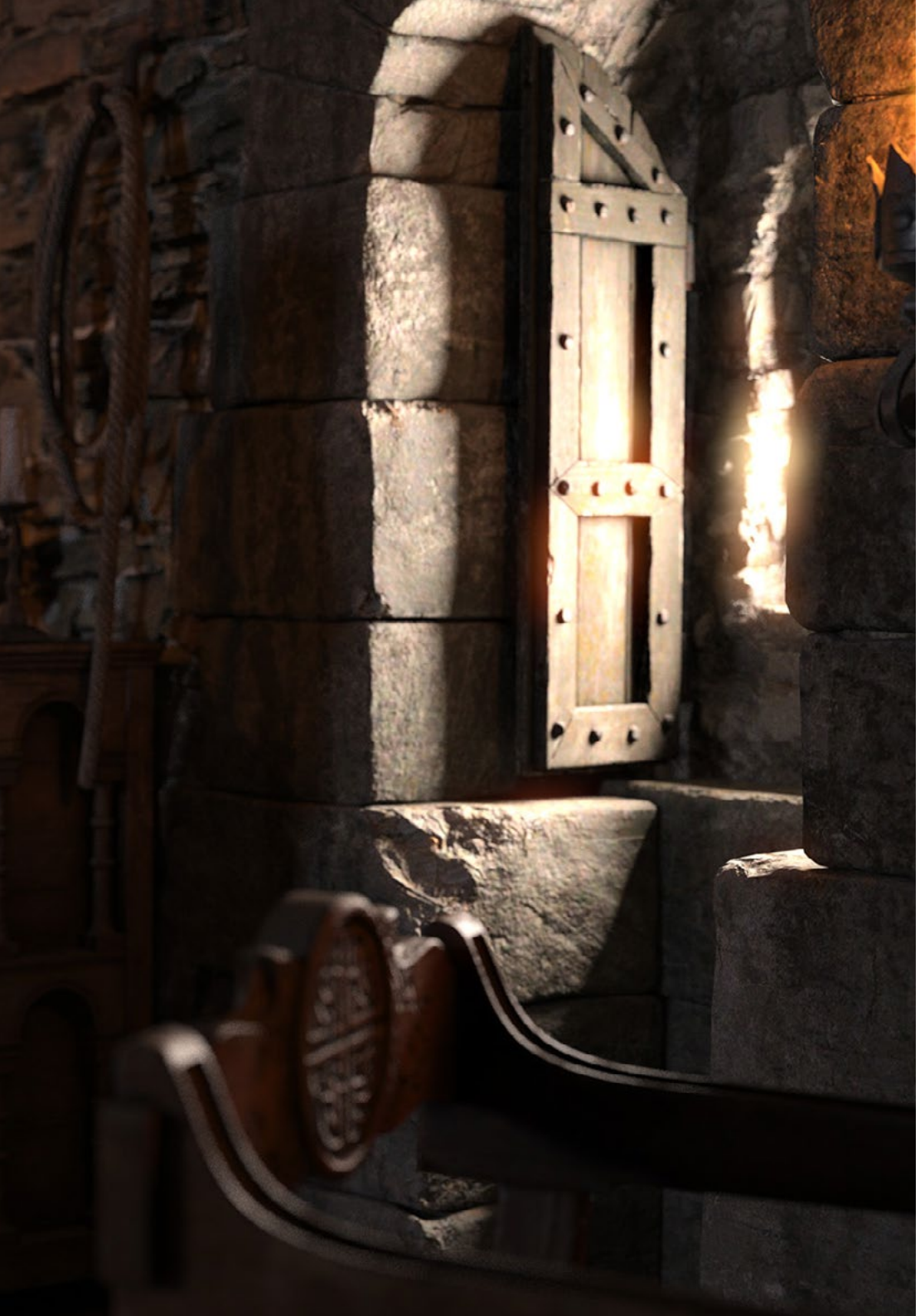
Module 20. Leadership and Talent Management

20.1. Business, Organisation and Human Resources
- 20.1.1. Organization and Organizational Structure
- 20.1.2. Strategic Management
- 20.1.3. Work Analysis and Organization

20.2. Comapny Human Resources Management
- 20.2.1. Organisation in Human Resources
- 20.2.2. Recruitment Channels
- 20.2.3. Professional Profiles in the Video Game Industry

20.3. Personal and Professional Leadership
- 20.3.1. Leaders and Leadership Processes
- 20.3.2. The Authority of Communication
- 20.3.3. Negotiation With Success and Failure

20.4. Knowledge and Talent Management
- 20.4.1. Strategic Talent Management
- 20.4.2. Technology Applied to Human Resources Management
- 20.4.3. Innovation Models in Human Resources



20.5. Knowledge Management as Crucial to Business Growth
- 20.5.1. General Objectives in Knowledge Management
- 20.5.2. Structure of Knowledge Management Systems and Flows
- 20.5.3. Processes in Knowledge Management

20.6. Coaching and Mentoring
- 20.6.1. PNL
- 20.6.2. Coaching and Mentoring
- 20.6.3. Processes

20.7. New Leadership Styles in VUCA Environments
- 20.7.1. Individual Change Management
- 20.7.2. Organizational Change Management
- 20.7.3. Tools

20.8. Diversity Management
- 20.8.1. Incorporating New Generations into Leadership Roles
- 20.8.2. Female Leadership
- 20.8.3. Multicultural Management

20.9. Coach Leader
- 20.9.1. Coach Leadership Skills
- 20.9.2. Feedback and Feedforward
- 20.9.3. Recognition

20.10. Adapting to New Technologies
- 20.10.1. Attitudes
- 20.10.2. Knowledge
- 20.20.3. Security/Safety

Not only will you learn how video game companies operate, but you will also acquire the best leadership skills to lead your company to success"

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

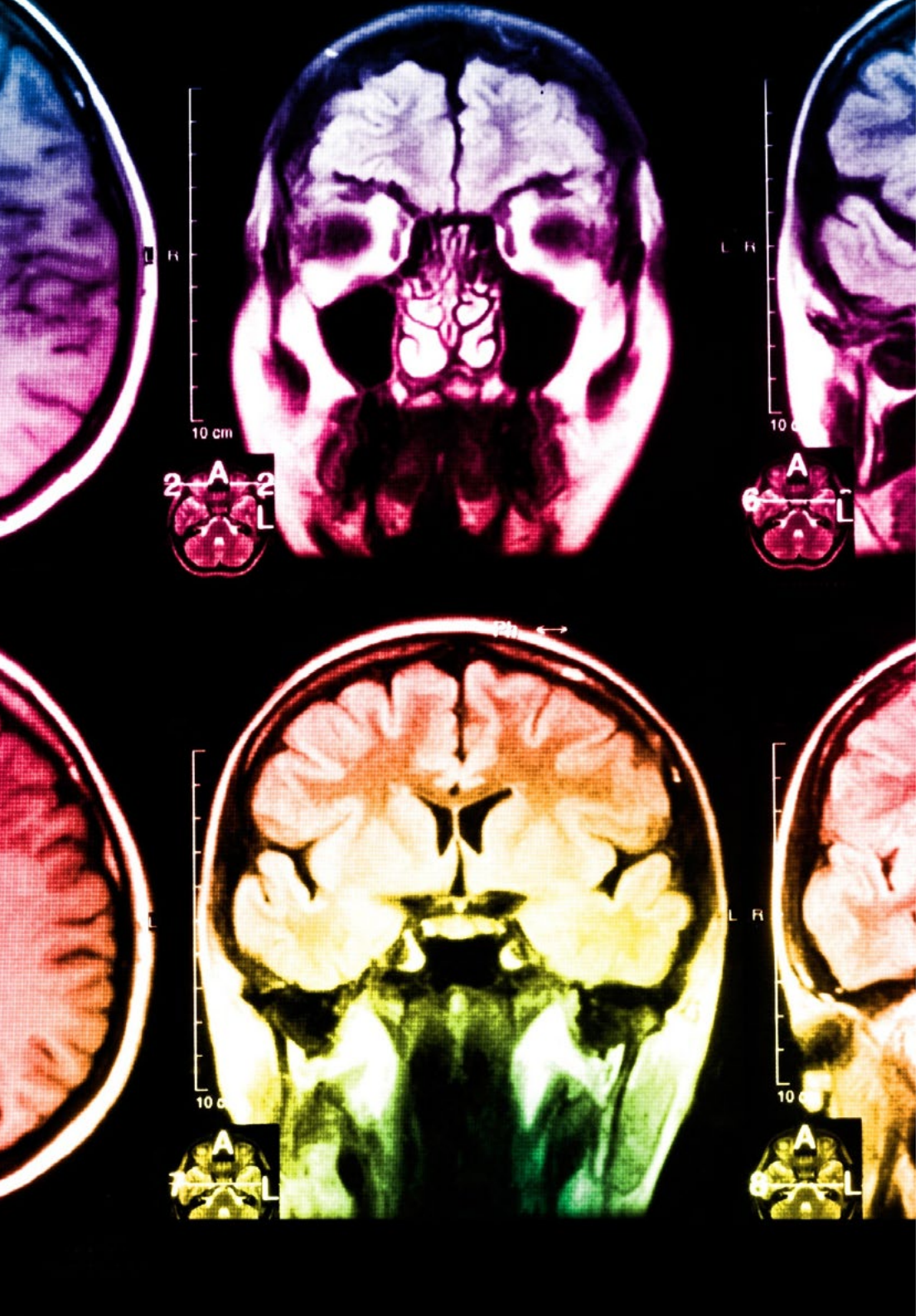
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

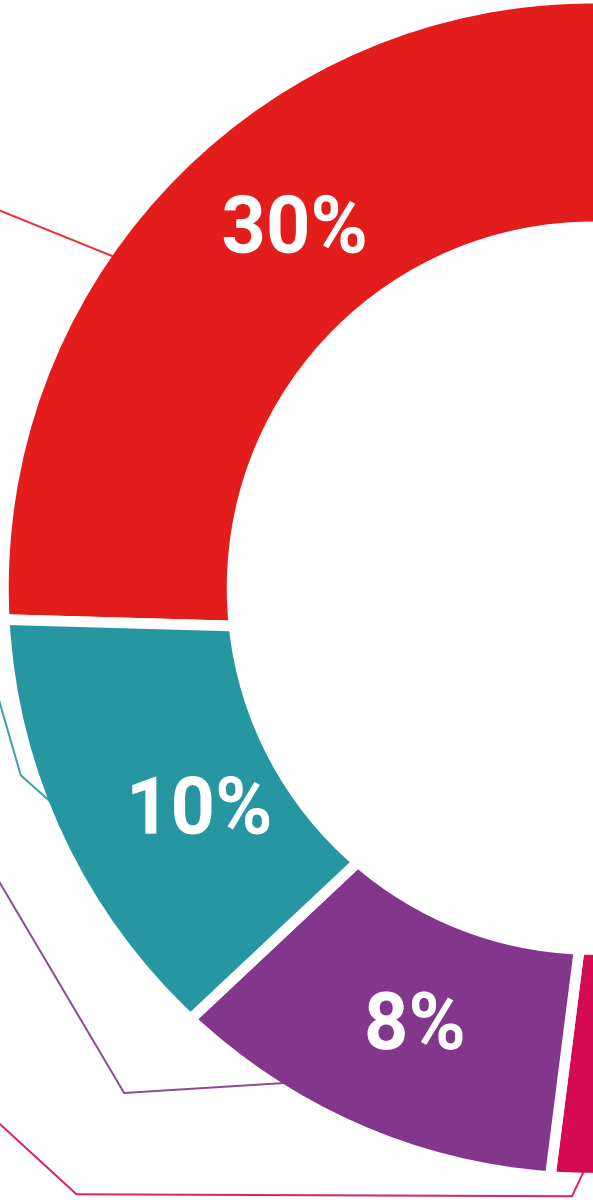
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

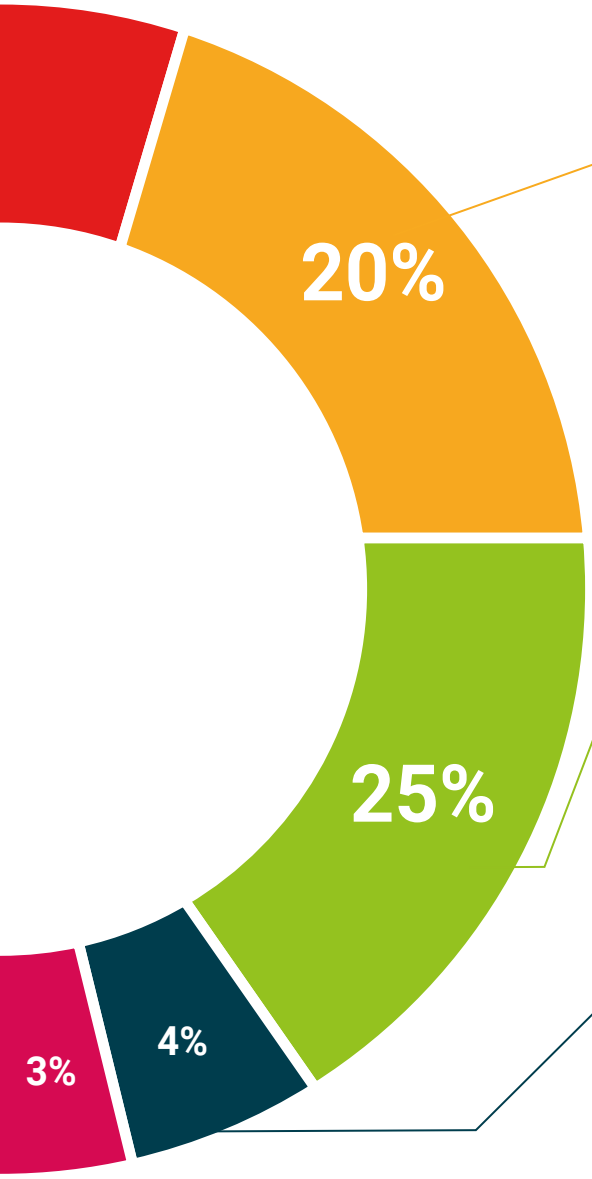
Practising Skills and Abilities

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 Advanced Master's Degree in Senior Management in Video Game Companies guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree issued by TECH Technological University.

By successfully completing this program, you will receive your TECH qualification without the need for complicated paperwork"

This **Advanced Master's Degree in Senior Management in Video Game Companies** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Advanced Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Advanced Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Advanced Master's Degree in Senior Management in Video Game Companies**

Official N° of hours: **3,000 h.**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having successfully passed and accredited the following program

ADVANCED MASTER'S DEGREE

in

Senior Management in Video Game Companies

This is a qualification awarded by this University, equivalent to 3,000 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates


Advanced Master's Degree in Senior Management in Video Game Companies

General Structure of the Syllabus

Year	Subject	Hours	Type
1º	Graphic and Artistic Expression	150	CO
1º	2D Animation	150	CO
1º	Motion Graphics	150	CO
1º	3D Art	150	CO
1º	3D Design	150	CO
1º	Computer Graphics	150	CO
1º	Video Game Engines	150	CO
1º	Character Design and Animation	150	CO
1º	Animation and Simulation	150	CO
1º	Character Rigging	150	CO
1º	Strategy in Digital and Video Game Companies	150	CO

Year	Subject	Hours	Type
2º	Video Game Company Management	150	CO
2º	Digital Marketing and Digital Transformation of Video Games	150	CO
2º	Video Game Company Formation	150	CO
2º	Project Management	150	CO
2º	Innovation	150	CO
2º	Financial Management	150	CO
2º	Commercial Management	150	CO
2º	eSports Management	150	CO
2º	Leadership and Talent Management	150	CO

Tere Guevara Navarro
Dean

tech technological university

*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

tech technological university

Advanced Master's Degree

Senior Management in Video Game Companies

Course Modality: **Online**

Duration: **2 years**

Certificate: **TECH Technological University**

Official N° of hours: **3,000 h.**

Advanced Master's Degree

Senior Management in Video Game Companies

tech technological university