Hybrid Master's Degree
Video Game Sound Design

tech global university

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Hybrid Master's Degree

Video Game Sound Design

Modality: **Hybrid (Online + Internship)**
Duration: **12 months**
Certificate: **TECH Global University**
Credits: **60 + 4 ECTS**
Website: **www.techtitute.com/us/videogames/hybrid-master-degree/hybrid-master-degree-video-game-sound-design**

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01

Introduction

Music plays a crucial role in the audiovisual sector, with great musicians composing soundtracks, the first notes of which are easily recognizable by the general public. Over time, sound has become just as important in the video game industry. From the early brief sounds, the human voice was introduced, and now everything together creates an atmosphere that surrounds and immerses the player. Behind these advancements is a professional sound design team, which is currently in high demand by the video game industry. This program offers a specialization with a 100% online theoretical framework that allows students to work alongside industry professionals.

Compose digital soundtracks for that video game you have in mind thanks to this Hybrid Master's Degree"

The narrative of a video game involves a process of development, design, and creativity that culminates in a sound design capable of making the gaming experience vivid, intense, and emotionally engaging for the player. At the same time, this discipline is supported by multiple phases, including production, musical composition, sound design, Foley, dialogue recording, and voice overs. Therefore, this Hybrid Master's Degree offers students a complete learning, where they will improve their knowledge and master the necessary tools to progress in a field with a wide range of job opportunities.

In the course of the 12 months that this program lasts, students will delve into harmony, music or audio production, sound creativity, composition techniques, always oriented to the environment of video games. At the same time, they will analyze the different techniques of multimicrophonic and surround sound capturing. They will also delve into how to prepare what is necessary to carry out a voice recording and its subsequent integration into the character animation.

This degree has two distinct educational phases. The first one takes place on the 100% online learning platform that TECH makes available to its students. From this virtual space, the student has total flexibility to access various multimedia content with interactive summaries and infographics. Through them, the music professional can freely decide when to connect and consult the extensive syllabus, without fixed schedules. This is an advantage for people who wish to combine their work and social life with the academic experience. On the other hand, the Postgraduate Certificate includes a 3-week practical internship in a company specialized in the sound design of video games.

Additionally, a prestigious International Guest Director will offer 10 in-depth Masterclasses.

This **Hybrid Master's Degree in Video Game Sound Design** contains the most complete and up-to-date program on the market. The most important features include:

- Development of more than 100 cases of Video Game Sound Design presented by programming professionals and university professors with extensive experience in the video game industry
- The graphical, schematic, and highly practical content is designed to provide scientific and healthcare information on the medical disciplines essential for professional practice
- The development of practical cases presented by experts in programming and video game development
- The graphic, schematic and practical contents with which it is conceived provide scientific and practical information on those disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- All of this will be complemented by 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
- In addition, you will be able to carry out a Internship Program at one of the best video game design and creation studios

Expand your knowledge and work with the best professionals in the video game industry with this Hybrid Master's Degree"

Master the main tools that will allow you to make excellent mixing processing for voices oriented to video games.

Enroll now in the Hybrid Master's Degree that will help you grow in your professional career and allows you to study at your own pace, without rush.

In this Hybrid Master's Degree, which is professionalizing and blended in format, the program is aimed at updating music professionals who wish to specialize in Video Game Sound Design and require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge in the practice of the gaming industry, and the theoretical-practical elements will facilitate the updating of knowledge and allow decision making in Video Game Sound Design.

Thanks to its multimedia content developed with the latest educational technology, they will allow the video game professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

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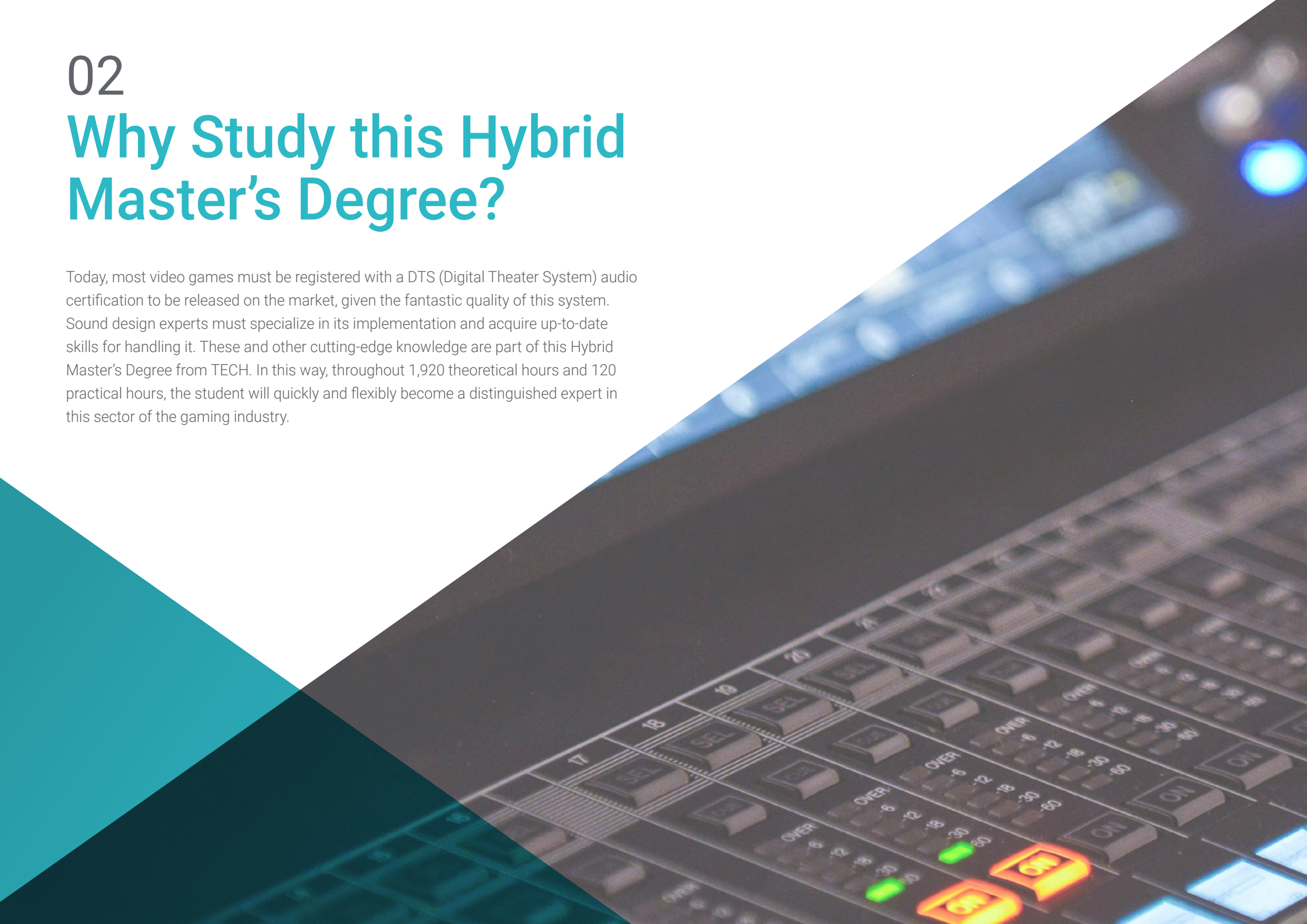
Why Study this Hybrid Master's Degree?

Today, most video games must be registered with a DTS (Digital Theater System) audio certification to be released on the market, given the fantastic quality of this system. Sound design experts must specialize in its implementation and acquire up-to-date skills for handling it. These and other cutting-edge knowledge are part of this Hybrid Master's Degree from TECH. In this way, throughout 1,920 theoretical hours and 120 practical hours, the student will quickly and flexibly become a distinguished expert in this sector of the gaming industry.



Thanks to this program, you will learn to differentiate between the behaviors of a real orchestra and those of a virtual orchestra and how to integrate both into a video game"

1. Update using the latest available technology

Upon completing this program, students will holistically master all the tools necessary for designing, editing, synthesizing, and laying out sounds in video game projects. These insights will be provided in a theoretical format in this innovative TECH program, while students will also acquire the essential practical skills for execution.

2. Learn from the best specialists

This training, defined by a theoretical phase and a hands-on practical component, brings together the leading professionals in Video Game Sound Design. Under their personalized guidance, students will master the latest dynamics, methodologies, and resources used in this creative sector.

3. Enter into first class environments dedicated to video game sound reinforcement

Through meticulous selection, TECH has identified renowned video game companies specializing in soundtrack integration. These centers, equipped with cutting-edge technology and highly skilled staff, will open their doors to students who want to expand their practical knowledge by working on real gaming projects.

4. Combine the best theory with advanced practical training

Unlike other programs in the educational market, this TECH Semi-presential Master's perfectly integrates theoretical teaching with professional practical training. To achieve this, it includes an intensive three-week on-site experience at video game companies specialized in voice and special effects integration into game plots.

5. Expand the boundaries of your knowledge

TECH is fully aware of the growing demand for sound experts in the video game industry. That is why we have invited companies from various locations to participate in this program. This way, students can choose the institution that best suits their location and development interests.

You will have full practical immersion at the center of your choice"

03

Objectives

The design of the program of this Hybrid Master's Degree will allow students to acquire the necessary skills to advance in a highly competitive programming that requires qualified personnel. Therefore, the main objective of this program is to ensure that students become an excellent video game developer from all the tools that this teaching provides. To achieve this, the program offers updated multimedia content with additional readings and utilizes a Relearning learning system, based on content repetition, which will facilitate the solidification of concepts.

Create unmistakable sounds for any gamer. Unleash your creativity with this Hybrid Master's Degree oriented to sound"

General Objective

- The general objective of this training in Video Game Sound is to achieve a deep understanding of sound in the gaming industry. At the end of this program, students will be able to distinguish the different instruments and the appropriate use of a traditional and a virtual orchestra and will know in depth the different specific techniques of video game composition. In addition, they will be able to relate the sound to the different parts of the video game and choose the appropriate editing method to create the sound of a character or an environment. All this, thanks to a teaching team that will guide you in an apprenticeship that will lead you to advance in a booming technological sector

Rhythm, harmony, dynamism. Perfect all your knowledge and focus it on the field of video games. Gamers will thank you for it"

Specific Objectives

Module 1. The Soundtrack in Video Games

- Understand in depth the acoustic performance and build a suitable space to work in
- Choose the material and components needed to deliver a professional result
- Understand the skills of the different positions in a team
- Differentiate the different types of video games and their relationship to music
- Assimilate the different roles and functions of music as a creator of worlds
- Understand the basic behavior of sound
- Differentiate the different types of listening when mixing and exporting a project
- Get to know the current trends in the world of music composition and sound design for video games

Module 2. Harmony

- Have a broad knowledge of the concepts of harmony
- Understand the construction and typology of chords
- Analyze the characteristic movements and rules of chord linking
- Assimilate tonal functions, tension-rest movements and harmonic rhythm
- Invert a chord in all its forms
- Learn the different non-chord tones found in harmony
- Learn the different non-chord tones found in melody
- Learn how the dominant works as a harmonic section
- Understand the harmonic evolution from tonality to chromaticism

Module 3. Advanced Harmony

- Classify and define modern modes according to their movements and modal degrees
- Relate the different types of modal chords
- Comprehensive learning of the construction and use of the various ethnic modes
- Comprehensively learn the construction and use of the various synthetic modes
- Analyze the difference between tonality, atonality and the different harmonic colors
- Assimilate the concepts of extra tonal harmony
- Understand in depth and differentiate the different methods of avant-garde music

Module 4. Acoustic and Virtual Orchestration

- Understand the construction and different formations of the orchestra
- Differentiate the instruments by their construction and way of emitting sound
- Broadly understand the use of the string section for different moments of sound
- Classify the different types of percussion instruments according to their construction
- Learn in detail the functioning of other less common instruments in the traditional orchestra
- Differentiate widely between the behavior of a real orchestra and that of a virtual orchestra
- Control the different sections of a virtual orchestra

Module 5. Composition Techniques

- Understand in depth the different basic elements for thematic creation
- Understand the behavior of the origin of counterpoint
- Assimilate the functioning of musical accompaniment
- Differentiate and create different types of thematic melodies
- Broadly understand the characteristics and typology of the *stinger*
- Create *one shot* musical compositions
- Compose using interactive techniques such as *layering* or horizontal sequencing
- Understand the functioning of the different variants of dynamic music

Module 6. Music and Audio Production

- Differentiate and classify the different types of microphones according to their construction and polar pattern
- Use different stereo recording techniques
- Understand the different techniques of multi-microphone and *surround* pickup
- Understand and use the different types of filters found in an equalizer to balance the frequencies of an instrument
- Understand and use the different processors to correct the dynamics of an instrument
- Understand and use reverberation to place an instrument in a sound space
- Understand and use the different effects processors to give spatiality to a track
- Master the sound construction based on audio-visual standards

Module 7. Sound Design

- Choose the editing method that best suits your needs
- Understand the *foley* technique and the different ways of capturing
- Manage the possibilities offered by the use of a sound library
- Plan the sound characteristics of the project
- Organize the different sounds that the project will have
- Define the sounds we find on screen
- Organize, process and clean the sound dialogues
- Catalogue and organize the project's sound effects
- Relate the different sounds to their corresponding events

Module 8. Sound Creativity

- Analyze the different types and characteristics of sound
- Understand in depth the different components that are sound objects
- Create and produce the sonority of different types of soundscapes
- Create and produce the sonority of different types of physical phenomena
- Create and produce the sonority of different characters
- Use and assimilate the *mophing* technique for sound creation
- Manage the use of sound layers
- Assimilate the different parameters of a sound space
- Create a sound space
- Understand and create sounds through sound synthesis

Module 9. *Voice-Over*

- Understand the needs and functions of the voice
- Learn how to use voice in conjunction with animation
- Organize and analyze *voice-over* requirements
- Select and prepare what is needed to carry out a voice-over recording
- Use the different editing methods depending on the type of scene
- Manage the final finishing touches of *voice-over* editing
- Learn and make extensive use of the technical requirements for recording a voice over
- Learn recording techniques from a voice actor's point of view
- Control the mixing process specific to vocals

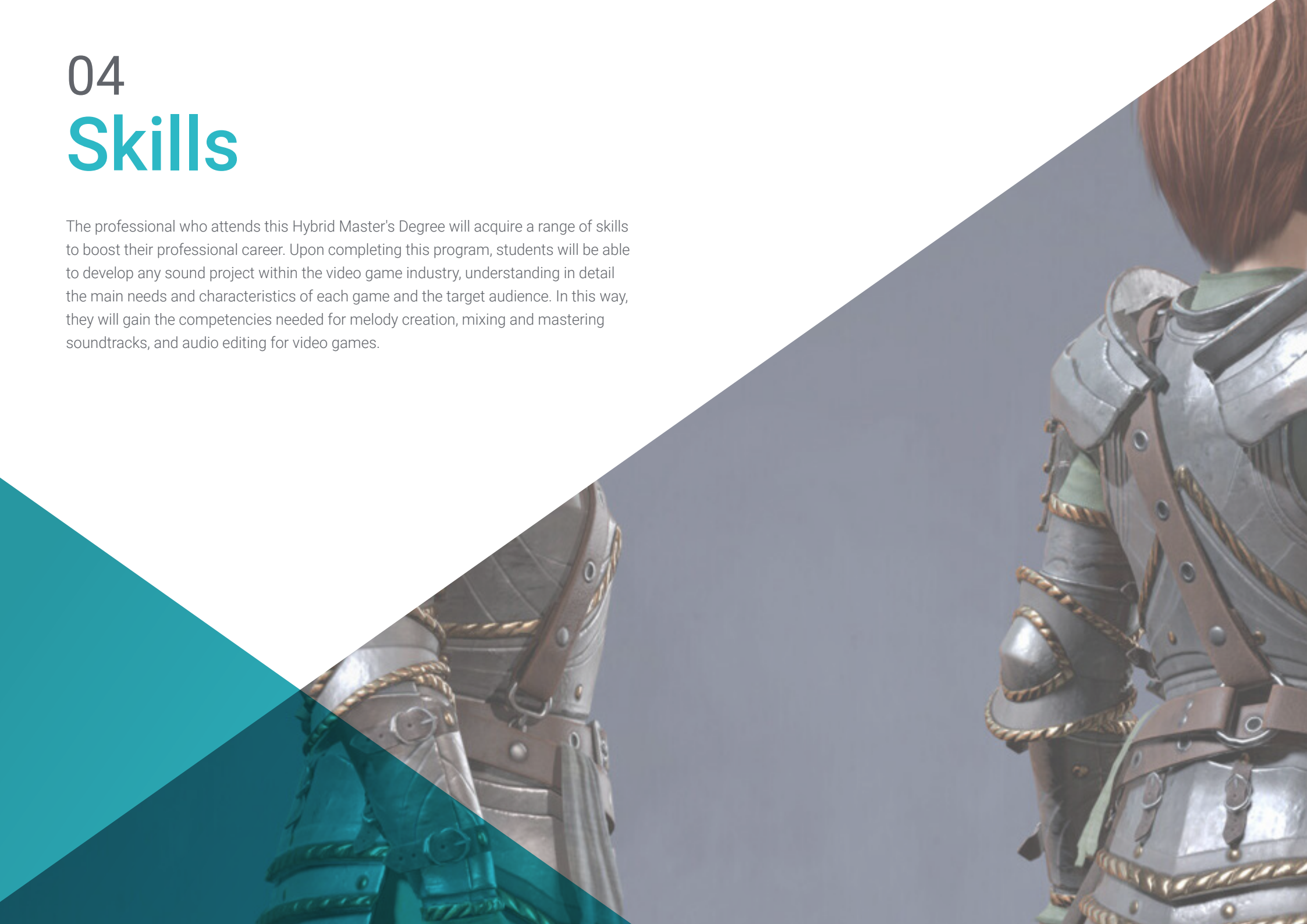
Module 10. Implementing Interactive Audio: FMOD

- Fluently operate the interface and its main windows
- Differentiate and master the different types of instruments
- Understand and use the different types of tracks
- Assimilate the structure and use of *logic tracks*
- Use parameters to create dynamics
- Manage sound modulation through generators
- Master the mix from the *middleware* itself
- Place the different sounds in the surround space
- Export and integrate all interactive audio into the corresponding game engine

04

Skills

The professional who attends this Hybrid Master's Degree will acquire a range of skills to boost their professional career. Upon completing this program, students will be able to develop any sound project within the video game industry, understanding in detail the main needs and characteristics of each game and the target audience. In this way, they will gain the competencies needed for melody creation, mixing and mastering soundtracks, and audio editing for video games.



Acquire the essential skills to develop any sound project in the video game industry. Enroll now"

General Skills

- Create, build and manage a space and a work team
- Plan, organize and develop a sound ecosystem
- Program, organize and select the appropriate techniques to carry out a recording session
- Generate and implement interactive audio for a video game
- Plan, develop and organize a soundtrack at different creative levels
- Plan, develop and organize sound aesthetics at different creative levels
- Achieve a powerful and realistic sound of a virtual orchestra
- Manipulate different creative techniques to obtain compositional resources
- Manage, plan and conduct a recording session
- Record and smoothly conduct a vocal recording session

The video game industry is in constant search of great sound experts. You can be one of them thanks to TECH!"

Specific Skills

- Create melodies and musical themes using basic composition techniques
- Perform editing, mixing and *mastering* of a soundtrack
- Cast, record and edit *voice-overs*
- Use modality as a tonal resource
- Manage the use of the woodwind section to fill in and reinforce the string section
- Use the brass section to fill in and reinforce the string and woodwind sections
- Handle the *loop* technique as a compositional resource
- Create a narrative discourse through sound
- Build chords with different intervallic or superimposed chords
- Use the capturing techniques of each instrument according to the family to which it belongs

05

Course Management

TECH has included in this Hybrid Master's Degree a teaching team with active professionals in the field of Video Game Sound with the aim of ensuring a teaching that meets the demands of students. The knowledge of the faculty in composition and sound post-production will facilitate the practical and real approach of the students to the requirements and needs of each game, in an industry that demands more specialization.

A teaching team with experience in Video Game Sound will be your best ally in your professional career. Enroll now"

International Guest Director

Dr. Alexander Horowitz is a leading **audio director and video game composer** with a solid career in the digital entertainment industry. As such, he has held the position of **Audio Director** for **Criterion** at **Electronic Arts**, in **Guildford**, UK. In fact, his specialization in **sound design** for **video games** has led him to work on high-profile projects, including his contribution to the **soundtrack of Hogwarts Legacy**, a game that received a **Grammy Award** nomination.

Likewise, throughout his career, he has accumulated valuable experience in several well-known companies in the **video game** industry. For example, he has been **Audio** Director at **Improbable** and **Audio Lead** at **Studio Gobo** in **Brighton and Hove**. In addition, his career has included key roles in creating audio experiences for **AAA titles** such as **Red Dead Redemption 2** and **GTA V**: **Online** for **Rockstar North**, as well as **Madden NFL 17** for **Electronic Arts**. These experiences have allowed him to develop a deep understanding of **audio production** and **direction** in the context of large projects.

Internationally, he has gained recognition for his innovative work in **sound design** for **video games**. In this sense, he has been nominated for a **BAFTA award** for his work on the **short film Room 9** and has participated in the creation of several critically acclaimed games. His ability to combine **creativity** and **technology** has earned him a prominent place in the international field of **audio design** for **video games**.

In addition to his great professional success, Dr. Alexander Horowitz has contributed to his field through **research**, as his work includes **publications** and **studies** on **sound** for **interactive media**, providing valuable knowledge and advances in his specialty.

Dr. Horowitz, Alexander

- Criterion Audio Director at Electronic Arts, Guildford, United Kingdom
- Audio Director at Improbable
- Audio Lead at Studio Gobo
- Lead Audio Developer at FundamentalVR
- Audio Lead at The Imaginati Studios Ltd.
- Game Tester at Rockstar Games
- Audio Production Assistant at Electronic Arts (EA)
- Ph.D. in Game Development from Glasgow School of Art
- Master's Degree in Serious Games and Virtual Reality at Glasgow School of Art
- Master's Degree in Sound Design for the Moving Image from the Glasgow School of Art
- Bachelor of Music in Composition from the Royal Conservatory of Scotland

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

Management

Mr. Raya Buenache, Alberto

- Musician Specialist in Performance and Composition for Audiovisual Media
- Musical director from of the Colmejazz Big Band
- Director of the Colmenar Viejo Youth Symphony Orchestra
- Professor of Music Composition for Audiovisual Media and Music Production
- Advanced Music Degree in the Specialty of Performance from the Royal Conservatory of Music of Madrid
- Master's Degree in Composition for Audiovisual Media (MCAV) from the Katarina Gurska University of Applied Sciences

Faculty

Ms. González Rus, Lorena

- Direct Sound and Postproduction Specialist
- Sound Designer and Sound Engineer at Saber Interactive
- Sound Designer and Engineer at Spika Tech
- Specialization in Sound, Direct Sound and Postproduction at TAI School of Arts
- Degree in Cinematography and Visual Arts from the University School of ARTs TAI

Ms. Jiménez García, Marina

- Direct Sound and Postproduction Specialist
- Head of Direct Sound and Postproduction at *Un Susurro*
- Head of Direct Sound at *Alas de Papel*
- Direct Sound Assistant at *El Descampado*
- Postproduction at *Similia*
- Degree in Cinematography and Audiovisual Arts from TAI University Center of the Arts

Mr. Martín, Álvaro

- Sound Technician at SDI MEDIA IBERIA
- Sound Technician at EDM
- Advanced Degree in Sound

Ms. Valencia Loaiza, Carolina

- Composer Specializing in Video Games
- Teacher of piano and theory of musical initiation
- Bachelor's Degree in History from Valle University
- Master's Degree in Audiovisual Media Composition

Mr. García Cabrero, Alejandro

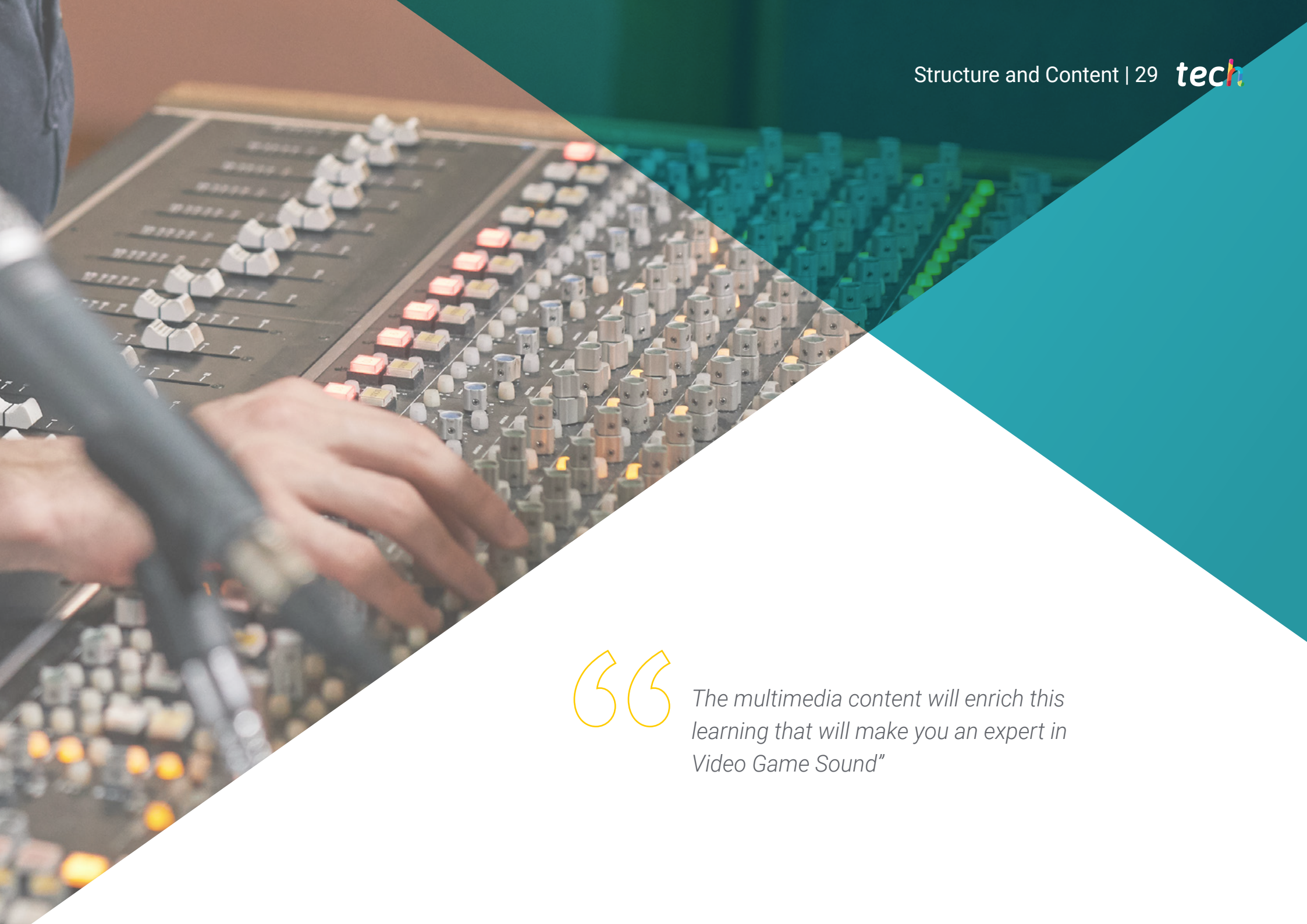
- Degree in Cinematography and Visual Arts
- Sound assistant at Lucky Road
- Sound editing assistant at Lucky Road
- Degree in Cinematography and Visual Arts from the University School of ARTs TAI

The personalized guidance of the teachers of this degree will specialize you in the creation of voices using the most innovative voice-over techniques"

06

Structure and Content

During the months of this Hybrid Master's Degree, students will follow a training that has been structured in 10 modules that address a specific subject on music oriented to video games. In this way, students will delve into harmonic rhythm, harmonic progressions, modern modes, orchestration, composition processes, recording or editing methods. The multimedia content of each module, the essential readings and the learning system, Relearning, allow the professional to acquire in a friendly way all the knowledge provided by the specialized teaching staff.



The multimedia content will enrich this learning that will make you an expert in Video Game Sound"

Module 1. The Soundtrack in Video Games

1.1. The Workspace
- 1.1.1. Acoustic Aspects
- 1.1.2. Preparing a Room
- 1.1.3. Building a Room into a Room

1.2. Work Tools I: Hardware
- 1.2.1. The Computer
- 1.2.2. Audio Interface
- 1.2.3. Listening Systems and Other Equipment

1.3. Work Tools II: Software
- 1.3.1. DAW
- 1.3.2. Kontakt
- 1.3.3. *Plugins*

1.4. The Production Team
- 1.4.1. Equipment Structure
- 1.4.2. Equipment Functions
- 1.4.3. Our Place within the Team

1.5. Types of Video Games and Musical Genres
- 1.5.1. Who Is the Music Intended for?
- 1.5.2. Music Personality and Aesthetics
- 1.5.3. Ratio music vs. Genres in Video Games

1.6. Music Roles and Functions
- 1.6.1. Music as a Mood
- 1.6.2. Music as a Creator of Worlds
- 1.6.3. Other Roles

1.7. Workflow in Music Composition
- 1.7.1. Planning, Aesthetics and Creation of the MDD
- 1.7.2. First Ideas and Composition of Demo Music
- 1.7.3. The Final Product, from the Demo to the Master Version

1.8. Workflow in Editing and Sound Design
- 1.8.1. Planning and Creation of the ADD
- 1.8.2. Design and Editing
- 1.8.3. Adjustment, Synchronization and Testing on the Audio Engine

1.9. Sound Fundamentals
- 1.9.1. Characteristics
- 1.9.2. Frequency Spectrum
- 1.9.3. Surround Sound

1.10. Surround and 3D Sound
- 1.10.1. Horizontal vs. Sound Vertical
- 1.10.2. 3D Audio Simulations
- 1.10.3. *Surround* Systems and *Dolby Atmos*

Module 2. Harmony

2.1. Harmony
- 2.1.1. The Pentagram, Clefs, Notes and Figures
- 2.1.2. Range
- 2.1.3. Intervals

2.2. Chord Construction: Types and Arrangement
- 2.2.1. Classification
- 2.2.2. Chord Arrangement
- 2.2.3. Duplications

2.3. Building Chords: Movements
- 2.3.1. Harmonic Movements
- 2.3.2. Octaves, Unison and Successive and Resulting Fifths
- 2.3.3. Combining Chords

2.4. Harmonic Progressions
- 2.4.1. Tonal Functions
- 2.4.2. Harmonic Rythm
- 2.4.3. Cadence

2.5. Inversions
- 2.5.1. The First Inversion
- 2.5.2. The Second Inversion
- 2.5.3. Inverted Cadence

2.6. Non-Chord Tones: Harmonic Dissonance
- 2.6.1. Harmonic and Melodic Dissonance
- 2.6.2. Non-Chord Tones in Harmonic Dissonance
- 2.6.3. Delay and Appoggiatura

2.7. Non-Chord Tones: Melodic Dissonance
- 2.7.1. Non-Chord Tones in Melodic Dissonance
- 2.7.2. Pitch Note, Ornaments, Elision, Anticipation and Pedal
- 2.7.3. Combined Action of Non-Chord Tones

2.8. Non-Chord Tones in Chords
- 2.8.1. Dominant Seventh
- 2.8.2. Seventh Leading-Tone and Second Degree Seventh
- 2.8.3. Remaining Seventh Chords

2.9. Dominant Harmony
- 2.9.1. Dominant Harmony
- 2.9.2. Dominant of the Dominant
- 2.9.3. Secondary Dominant

2.10. Evolution Towards Chromaticism
- 2.10.1. Diatonism and Modulation
- 2.10.2. Expressive Chromaticism
- 2.10.3. Loss of Tonal Function

Module 3. Advanced Harmony

3.1. Modern Modes
- 3.1.1. Mode Classification
- 3.1.2. Modal Scale
- 3.1.3. Modal Operation

3.2. Modal Harmonic Relationships
- 3.2.1. Major and Minor Chords
- 3.2.2. Modal Cadences
- 3.2.3. Modal Harmonization

3.3. Tonal Use of Modality
- 3.3.1. Tonal Function of the Modal Chord
- 3.3.2. Tonal Cadences with Modal Chords
- 3.3.3. Tonal Use of the Modal Chord

3.4. Ethnic Modes
- 3.4.1. Modal Scales
- 3.4.2. Tonal Use
- 3.4.3. Modal Chord

3.5. Synthetic Modes
- 3.5.1. Construction
- 3.5.2. Modal Scales
- 3.5.3. Tonal Use

3.6. Tonal Use of Ethnic and Synthetic Modes
- 3.6.1. The Idea
- 3.6.2. Tonal Functions
- 3.6.3. The Chord as a Harmonic Color

3.7. Harmonic Colors: Tonality and Atonality
- 3.7.1. Tonality. Atonality
- 3.7.2. Chords without a Function
- 3.7.3. Harmonic Omission

3.8. Harmonic Colors: Constructions
- 3.8.1. Chord Construction in Different Intervals
- 3.8.2. Overlapping Chords
- 3.8.3. Colored Modal Chord

3.9. Extra-Tonal Harmony
- 3.9.1. Bitonality
- 3.9.2. Poly-Tonality vs. Atonality
- 3.9.3. Dodecaphonism and Serialism

3.10. Avant-Garde Music
- 3.10.1. Random Music
- 3.10.2. Indeterminism
- 3.10.3. Minimalism

Module 4. Acoustic and Virtual Orchestration

4.1. The Orchestra
- 4.1.1. Assessment Instruments
- 4.1.2. Formats
- 4.1.3. Hybrid Orchestra

4.2. Assessment Instruments
- 4.2.1. Structure and Classification
- 4.2.2. Techniques
- 4.2.3. Timbre Effects

4.3. String Orchestration
- 4.3.1. Sound Planes
- 4.3.2. Contrapuntal vs. Homophonic Writing Homophone
- 4.3.3. Accompanying a Soloist

4.4. Woodwind and String Accompaniment Orchestration
- 4.4.1. Contrapuntal vs. Homophonic Writing Homophone
- 4.4.2. Use of Wood to Achieve Color Contrasts
- 4.4.3. Special Effects

4.5. Brass and Woodwind Orchestration with Woodwinds and Strings
- 4.5.1. Uses and Duplications
- 4.5.2. Melody, Homophonic and Contrapuntal Writing
- 4.5.3. Sound Climax and Timbral Effects

4.6. Percussion Section
- 4.6.1. Instrument Classification
- 4.6.2. Number and Distribution of Instrumentalists
- 4.6.3. Notation of Percussion Instruments

4.7. Other Instruments
- 4.7.1. Keyboard Instruments
- 4.7.2. String Instruments without a Bow
- 4.7.3. Orchestration for These Instruments

4.8. Differences between *Samplers* and Real Orchestras
- 4.8.1. Dynamics, Balance and Panorama
- 4.8.2. *Layers*
- 4.8.3. *Keyswitches*

4.9. Orchestration techniques for Samplers: *Patches Ensemble*
- 4.9.1. Full and Powerful Sound
- 4.9.2. Using *Patches Ensemble*
- 4.9.3. Strings: *Sustain, Tremolo* and *Staccato*

4.10. Orchestration Techniques for *Samplers:* Pairing
- 4.10.1. Timpani
- 4.10.2. Orchestra and Percussion Pairing
- 4.10.3. Choir and Orchestra Pairing

Module 5. Composition Techniques

5.1. Thematic Construction
- 5.1.1. Form
- 5.1.2. The Motive
- 5.1.3. The Musical Phrase

5.2. Counterpoint
- 5.2.1. The Musical Phrase
- 5.2.2. Melodic Rhythm and Harmonic Rhythm
- 5.2.3. Counterpoint in Several Voices

5.3. Accompaniment
- 5.3.1. Types of Accompaniment
- 5.3.2. Reason for Accompaniment
- 5.3.3. Bass Line

5.4. Melody
- 5.4.1. Vocal Melody
- 5.4.2. Instrumental Melody
- 5.4.3. Counter Theme Melody

5.5. Creative Techniques
- 5.5.1. The Pedal and the *Ostinato*
- 5.5.2. Multi-Tonics and Repetitions
- 5.5.3. Reharmonization

5.6. Composition Techniques for Video Games: The Linear *Loop*
- 5.6.1. Characteristics
- 5.6.2. Methods
- 5.6.3. Technical Problems

5.7. Composition Techniques for Video Games: The *Stinger*
- 5.7.1. Characteristics
- 5.7.2. Types
- 5.7.3. *Stingers* in Action

5.8. Composition Techniques for Video Games: One-Shot Tracks
- 5.8.1. Characteristics
- 5.8.2. Cinematics and Scenes
- 5.8.3. Hyphenated Events

5.9. Composition Techniques for Video Games: Interactive Music
- 5.9.1. Introduction to Interactive Music
- 5.9.2. Horizontal Sequencing
- 5.9.3. Vertical *Layering*

5.10. Dynamic Music
- 5.10.1. Generative Music
- 5.10.2. Adaptive Music
- 5.10.3. Problems of Dynamic Music

Module 6. Music and Audio Production

6.1. The Recording Session
- 6.1.1. Pre-Production
- 6.1.2. Preparation/Choosing a Studio
- 6.1.3. Session Registration

6.2. Microphones
- 6.2.1. Microphones
- 6.2.2. Types of Microphones
- 6.2.3. Characteristics

6.3. Stereo Microphone Techniques
- 6.3.1. Matching Pair
- 6.3.2. Spaced Pair
- 6.3.3. Near-Matching Pair

6.4. Multi-Microphone and *Surround Techniques*
- 6.4.1. Multi-Microphone Techniques
- 6.4.2. *Surround* Recording
- 6.4.3. *Surround* Recording Techniques

6.5. Instrument Recording
- 6.5.1. Stringed Instruments
- 6.5.2. Percussion Instruments
- 6.5.3. Wind and Amplified Instruments

6.6. Mixing Techniques: Equalization
- 6.6.1. Equalization
- 6.6.2. Types of Filters
- 6.6.3. Applying to the Track

6.7. Mixing Techniques: Dynamics
- 6.7.1. Compressors and Other Processors
- 6.7.2. *Sidechain*
- 6.7.3. Multi-Band Compression

6.8. Mixing Techniques: Reverberation
- 6.8.1. Characteristics of an Ambience
- 6.8.2. Functions and Algorithms
- 6.8.3. Parameters

6.9. Mixing Techniques: Other Effects
- 6.9.1. Eco/*Delay*
- 6.9.2. Modulation Effects
- 6.9.3. *Pitch* Effects

6.10. Mastering
- 6.10.1. Characteristics
- 6.10.2. Process
- 6.10.3. Application in the Audio Engine

Module 7. Sound Design

7.1. Editing Methods
- 7.1.1. Audio Editor
- 7.1.2. *Multitrack* Editor
- 7.1.3. Sequencer

7.2. *Foley*
- 7.2.1. Field Recording
- 7.2.2. Studio Recording
- 7.2.3. Editing

7.3. Sound Libraries
- 7.3.1. Formats
- 7.3.2. Types
- 7.3.3. Creating Libraries

7.4. Planning
- 7.4.1. Sound Spaces
- 7.4.2. Game Mechanics
- 7.4.3. Requirements

7.5. Sound Organization
- 7.5.1. References
- 7.5.2. Sources
- 7.5.3. Editing

7.6. Sound Script
- 7.6.1. References
- 7.6.2. Connection with Narrative Elements
- 7.6.3. Proposals

7.7. Sound Image
- 7.7.1. Visual Sounds
- 7.7.2. Mute Sounds
- 7.7.3. Invisible Sounds

7.8. Dialog Cleaning
- 7.8.1. Organization
- 7.8.2. Vocal Processing
- 7.8.3. Standardization

7.9. Sound Effects
- 7.9.1. Organization
- 7.9.2. Types
- 7.9.3. Categories

7.10. Event Adjustments
- 7.10.1. Characteristics
- 7.10.2. Types of Events
- 7.10.3. Synchronization

Module 8. Sound Creativity

8.1. Sound Analysis
- 8.1.1. Characteristics
- 8.1.2. Types of Sounds
- 8.1.3. Narrative Development

8.2. Sound Object
- 8.2.1. Silences
- 8.2.2. Environment
- 8.2.3. Metaphor

8.3. Soundscapes
- 8.3.1. Features of the Environment
- 8.3.2. Layers of the Environment
- 8.3.3. Hybridizations

8.4. Physical Phenomena
- 8.4.1. Waves and Frequences
- 8.4.2. Particles
- 8.4.3. Subject

8.5. Creating Characters
- 8.5.1. Analysis
- 8.5.2. Natural Sounds
- 8.5.3. Game Sounds

8.6. *Morphing*
- 8.6.1. Amplitude
- 8.6.2. Substitution
- 8.6.3. Interpolation

8.7. Layers
- 8.7.1. Materials
- 8.7.2. Psychological
- 8.7.3. Reflexive

8.8. Space Design: Panoramic
- 8.8.1. Overview
- 8.8.2. Reverberation
- 8.8.3. Absorption

8.9. Space Design: Noise
- 8.9.1. Noise
- 8.9.2. Sound Planes
- 8.9.3. Randomness

8.10. Generation by Synthesis
- 8.10.1. Analog Synthesis
- 8.10.2. Digital Synthesis
- 8.10.3. Modular Synthesis

Module 9. *Voice-Over*

9.1. Voice Objectives
- 9.1.1. Quality
- 9.1.2. Functions
- 9.1.3. Characteristics

9.2. Voice Creation: Voice and Animation
- 9.2.1. Voice before Animation
- 9.2.2. Voice before Animation
- 9.2.3. Voice after Animation

9.3. Voice Creation: Types and Script
- 9.3.1. Types of Voices
- 9.3.2. Script Creation
- 9.3.3. List of *Assets*

9.4. Choosing the *Voice-Over*
- 9.4.1. Casting
- 9.4.2. In-house Study vs. Specialized study
- 9.4.3. Costs and Benefits of Using *Voice-Over*

9.5. Recording Sessions
- 9.5.1. Fluidity in the Session
- 9.5.2. Recording
- 9.5.3. Management

9.6. Editing
- 9.6.1. Dialogues in Cinematics
- 9.6.2. Character Interaction
- 9.6.3. Silences

9.7. Finishes
- 9.7.1. Rendering
- 9.7.2. Synchronization
- 9.7.3. Exporting

9.8. Vocal Recording: Placement
- 9.8.1. Type of Microphone
- 9.8.2. Positioning the *Voice-Over*
- 9.8.3. How to Approach Voice Recording

9.9. Vocal Recording: *Sound-Sync*
- 9.9.1. *Sound-Sync*
- 9.9.2. Restricted Files
- 9.9.3. Unrestricted Files

9.10. Voice Processing
- 9.10.1. Equalization
- 9.10.2. Dynamics
- 9.10.3. Effects

Module 10. Implementing Interactive Audio: FMOD

10.1. FMOD
- 10.1.1. Installation
- 10.1.2. Main Advantages
- 10.1.3. Publisher's Organization

10.2. Instruments: *Single* and *MultiInstruments*
- 10.2.1. *Single and MultiInstruments*
- 10.2.2. *Event Instruments*
- 10.2.3. *Programmer Instruments*

10.3. Instruments: *Command Instruments*
- 10.3.1. *Command Instruments*
- 10.3.2. *Silence and Scatter Instruments*
- 10.3.3. *Snapshot Instruments*

10.4. Tracks
- 10.4.1. Audio Tracks
- 10.4.2. Automation Tracks
- 10.4.3. Return and Master Tracks

10.5. *Logic Tracks*
- 10.5.1. Destination Markers
- 10.5.2. Transitions and Transition Regions
- 10.5.3. *Loop* Regions

10.6. Parameters
- 10.6.1. Adjustments
- 10.6.2. Sheets
- 10.6.3. Properties

10.7. Modulators
- 10.7.1. Type of Surround
- 10.7.2. Type LFO
- 10.7.3. *Sidechain* Type

10.8. Mixer
- 10.8.1. View Configuration
- 10.8.2. Buses, Events, Shipments and Returns
- 10.8.3. VCA

10.9. 3D Events
- 10.9.1. Spacer
- 10.9.2. 3D Preview
- 10.9.3. *Built-In* Parameters

10.10. Exporting
- 10.10.1. Libraries
- 10.10.2. Preferences
- 10.10.3. Platforms

07

Internship

Once the music professional and video game enthusiast completes the theoretical phase of this Hybrid Master's Degree, they will take a new eminently practical stage in a studio in charge of the design and creation of video games. This part of the program completes a Postgraduate Certificate that seeks from the beginning the progression of students to help them in their career aspirations and encourage the approach to the reality of the video game industry.

Knowledge and practice with the best professionals. Everything at your fingertips with this Hybrid Master's Degree"

The Internship period of this Postgraduate Certificate in Video Game Sound is 3 weeks long. During this time, students will work with professionals working on sound projects for video games. From Monday to Friday and with 8 consecutive hours of practical teaching, they will develop this practical experience.

In this phase of the Hybrid Master's Degree, students will be able to put their creativity and knowledge in a studio that has qualified personnel in the field of video game creation and development. It is in this work environment where the student will really demonstrate that he/she has correctly acquired the knowledge and will become a true specialist in Video Game Sound Design.

At this stage the student will not be alone, but will face this challenge with the help of a tutor who will closely monitor the tasks performed in this training.

The procedures described below will be the basis of the practical part of the training, and their implementation will be subject to the center's own availability and workload, the proposed activities being the following

Create unforgettable sound projects like those in Dead Space, Iron Man 2: The Video Game, or God of War with this 100% online program"

Module	Practical Activity
The Soundtrack in Video Games	Apply different planning, aesthetics and creation strategies to musical bands for video games
	Handle the main formats for the design, edition, adjustment and synchronization of musical pieces for video game soundtracks
Musical composition techniques based on acoustic and virtual orchestration	Use video game composition techniques: the Loop line, the Stinger
	Implementing interactive music strategies through the choice of events marked by the script
	Manage orchestration techniques for Samplers: Patches Ensemble, blending, among others
	Handle timbral effects, soundscapes, and special effects
	Deploy multi-microphone techniques and surround sound in soundtrack design
Methodologies of sound design for video games	Perform field and studio recordings
	Use different sound libraries, as well as processes for their planning and organization
	Edit sound pieces for video games, with an emphasis on cleaning dialogues and proper synchronization
	Apply different audio engines
Strategies for creating voices in video games	Synchronize voices and character animations in a video game
	Synchronize voices and character animations in a video game
	Choose, record, and direct voice-over sessions

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.

General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Hybrid Master's Degree, students will be assigned two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both practical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, five days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the student does not show up on the start date of the Hybrid Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who complete the Hybrid Master's Degree will receive a diploma accrediting their attendance at the institution.

5. EMPLOYMENT RELATIONSHIP: The Hybrid Master's Degree shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Hybrid Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Hybrid Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

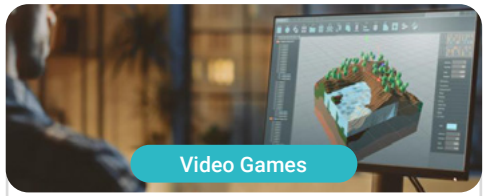
08

Where Can I Do the Internship?

This Hybrid Master's Degree includes a practical stay in a reference studio where students will put into practice everything they have learned about Video Game Sound. Thus, TECH gives an excellent opportunity to students who want to learn not only with relevant teachers, but also 'in situ' with industry professionals.

Become an excellent sound professional. Share your skills with other musicians and sound technicians in the industry."

The student will be able to complete the practical part of this Hybrid Master's Degree at the following centers:



Red Mountain

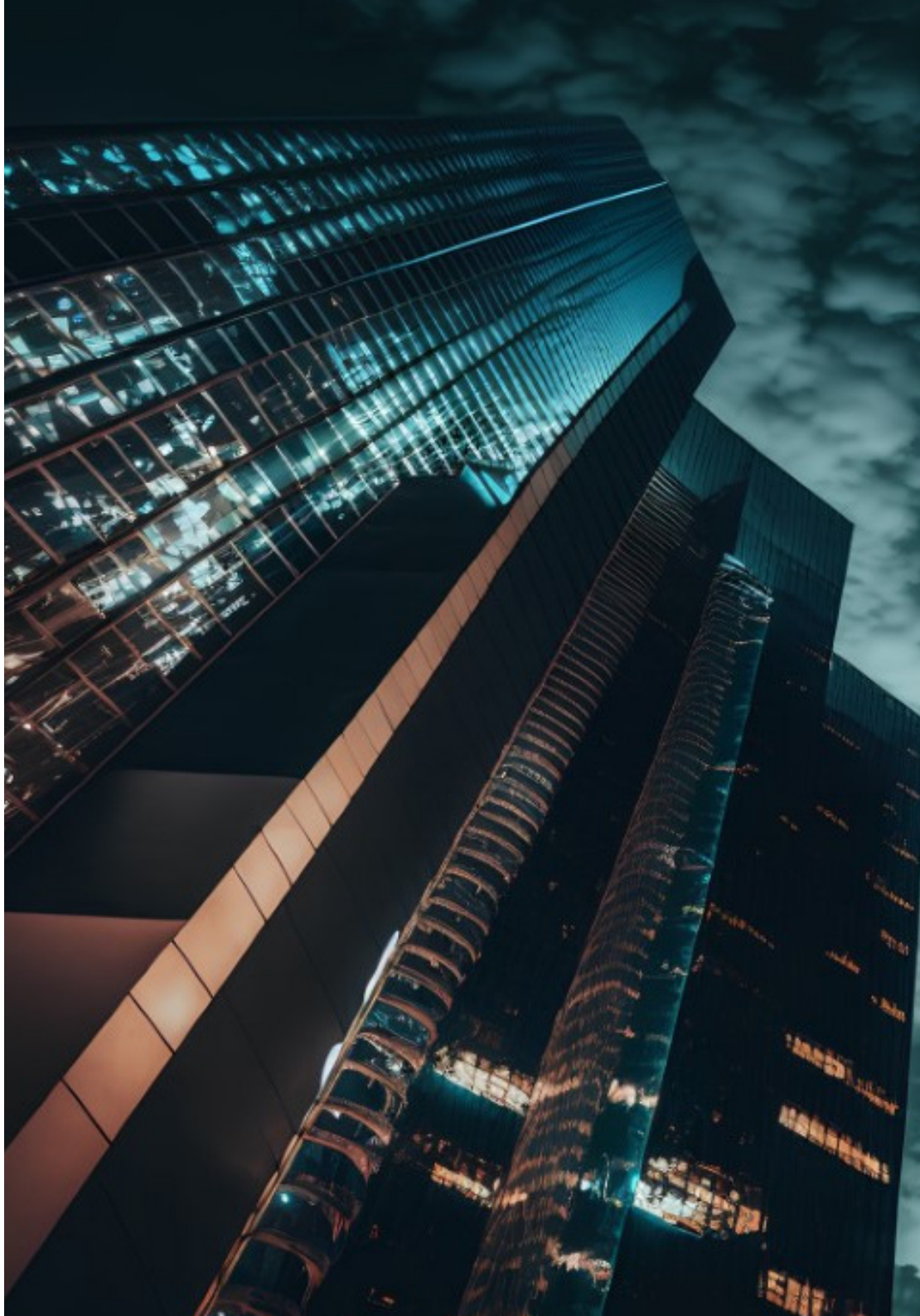
Country
Spain

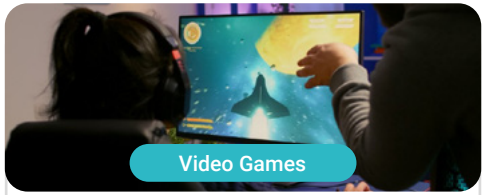
City
Madrid

Address: C/ Yeserias nº9, Local

A video game development company that also focuses on creating interactive applications.

Related internship programs:
- Video Game Sound Design





Vermila Studios

Country
Spain

City
Madrid

Address: C/Siena 56, local 1, 28027 (Madrid)

A creative company dedicated to audiovisual production and the creation of immersive experiences.

Related internship programs:
- Video Game Design
- Video Game Programming

Boost your career path with holistic teaching, allowing you to advance both theoretically and practically"

09

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

"TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

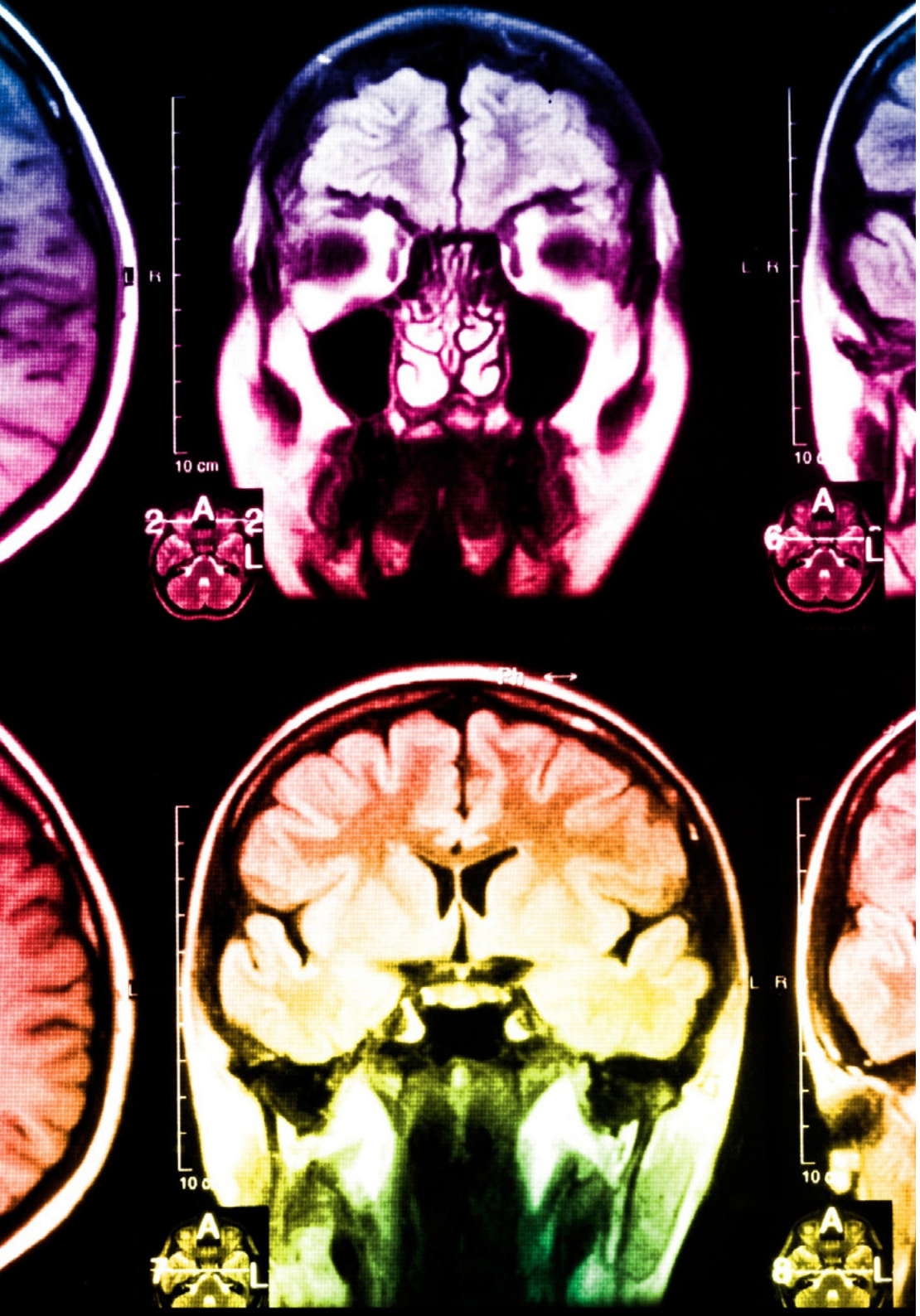
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

"The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

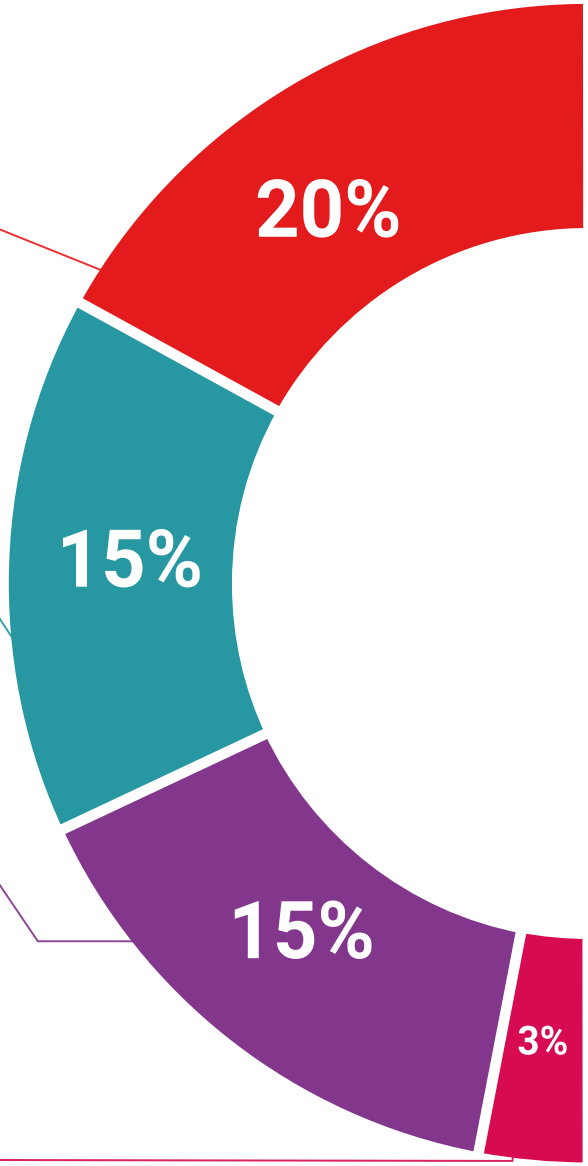
Interactive Summaries

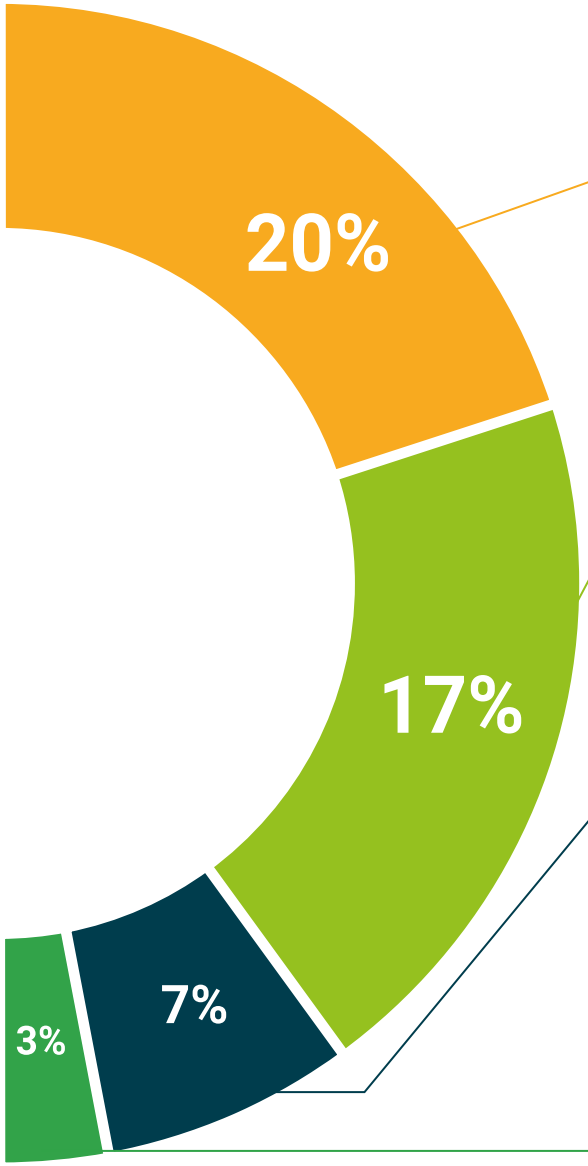
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

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 for future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

10

Certificate

The Hybrid Master's Degree in Video Game Sound Design guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Hybrid Master's Degree issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This private qualification will allow you to obtain a diploma for the **Hybrid Master's Degree in Video Game Sound Design** 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** private qualification, 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: **Hybrid Master's Degree in Video Game Sound Design**

Modality: **online**

Duration: **12 months**

Accreditation: **60 + 4 ECTS**


tech global university

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

Hybrid Master's Degree in Video Game Sound Design

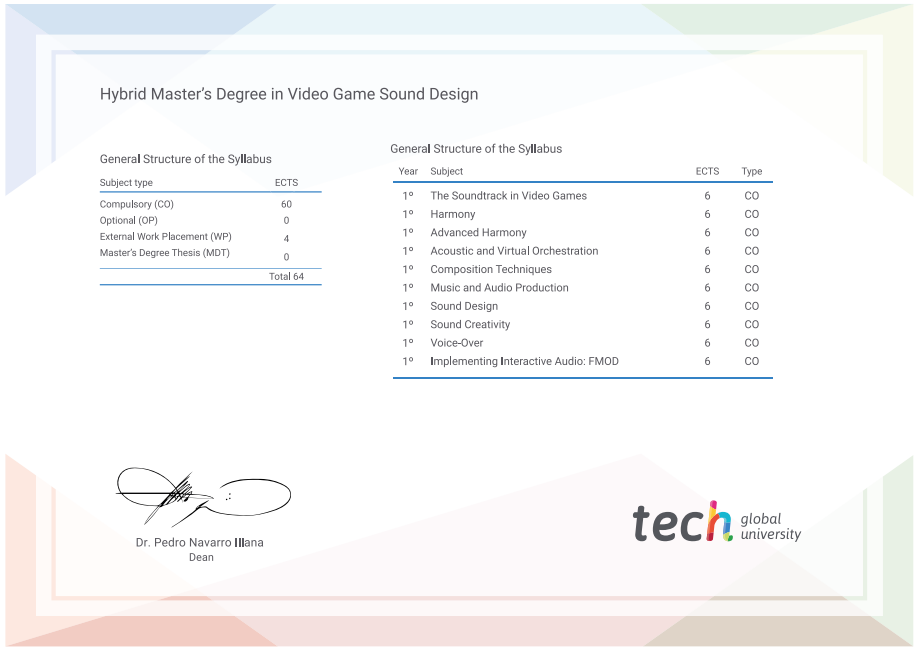
This is a private qualification of 1,920 hours of duration equivalent to 64 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

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

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates


Hybrid Master's Degree in Video Game Sound Design

General Structure of the Syllabus

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	4
Master's Degree Thesis (MDT)	0
	Total 64

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	The Soundtrack in Video Games	6	CO
1º	Harmony	6	CO
1º	Advanced Harmony	6	CO
1º	Acoustic and Virtual Orchestration	6	CO
1º	Composition Techniques	6	CO
1º	Music and Audio Production	6	CO
1º	Sound Design	6	CO
1º	Sound Creativity	6	CO
1º	Voice-Over	6	CO
1º	Implementing Interactive Audio: FMOD	6	CO

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Dean

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

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Hybrid Master's Degree

Video Game Sound Design

Modality: **Hybrid (Online + Internship)**
Duration: **12 months**
Certificate: **TECH Global University**
Credits: **60 + 4 ECTS**

Hybrid Master's Degree
Video Game Sound Design

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