

# Postgraduate Certificate

## Audio Creation for 3D Video Games



## Postgraduate Certificate

### Audio Creation for 3D Video Games

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/design/postgraduate-certificate/audio-creation-3d-video-games](http://www.techtitute.com/us/design/postgraduate-certificate/audio-creation-3d-video-games)

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# 01

# Introduction

The world of the audiovisual industry is growing exponentially every day, generating a demand for professionals with knowledge in creation, production and editing. An important part in the development of any video game is precisely the Audio Creation, being a requirement highly demanded by the companies of the sector. This need for increasingly specialized designers has led TECH to develop this program, in order to delve into the importance of sound products in everything related to 3D and VR. Through high quality multimedia content, the student will delve into soundtracks, sound effects and sound identity of the video game, among many other aspects of great interest. A 100% online program that offers theoretical and practical content, which will guarantee the improvement of the student's professional competencies.







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*Acquire new knowledge for the creation of sound products and their consolidation in the audiovisual industry”*

Audio is, if not the most important, one of the most crucial parts of audiovisual products. So much so that several projects worldwide have been characterized by their auditory success, attracting the attention of the public thanks to their extreme sound quality. For that reason, design professionals must know in detail the peculiarities for its production, edition and acceptance within the industry, as well as the necessary tools and software.

The creation of audio in the design of 3D video games serves to enhance the experience of the audiovisual product, enriching sound and leaving the imagination in the public's mind memorable moments such as scenes, still images and even the credits themselves. This program has the particularity that, in addition to the creation of the audio, it will delve into the necessary applications to incorporate it into 3D products and video games. This is a 100% online educational experience with which you can delve into the study able to perfect its multiple technical specifications in production, as well as the creation of sound effects adapted to each title

The content of the program will be available on the virtual platform from the beginning of the Postgraduate Certificate and can be downloaded for consultation, and can be studied from any device, even offline. It is therefore, a unique opportunity to Delve on the knowledge of the Creation of and audio, specialization of your professional profile through a multidisciplinary, dynamic, accessible degree that will elevate your talent to the top of the video game industry

This **Postgraduate Certificate in Audio Creation for 3D Video Games** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Video Games and Video Technologies
- ◆ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Special emphasis on 3D modeling and animation in virtual environments
- ◆ 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



*A 100% online program that will allow you to identify the most useful virtual tools and apply them in your audio creation processes"*

“

*You will learn how to use the best software for the creation, editing and adaptation of the sound product with the visual, which will position you with an advantage in the labor field of the future"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*You will be able to access the Virtual Classroom whenever and wherever you want, with no time limit and from any device with an internet connection.*

*Design memorable products that will frame the audiovisual milestones of the coming years thanks to the techniques and work methodology that you will acquire in this Postgraduate Certificate.*



# 02 Objectives

The main objective of this program is to present the design professional with the knowledge and tools necessary to create audio pieces that perfectly complement the video game they accompany. This is done so that the student acquires new skills for the realization of their projects, based on the most updated theoretical and practical knowledge. Therefore, TECH seeks in this program to meet all the most demanding goals of modern designers.





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*Create audio products that will reverberate for years to come and become part of pop culture, that which has marked the success of the audiovisual and video game industry”*



## General Objectives

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- ◆ Elaborate the sound identity of a 3D video game project
- ◆ Design the appropriate type of audio for the project such as vocals, soundtrack or special sound effects
- ◆ Estimate the audio creation effort to work within an appropriate production plan and timing



*Hone your skills in Audio Creation and improve your job opportunities for the video game industry of the future"*





## Specific Objectives

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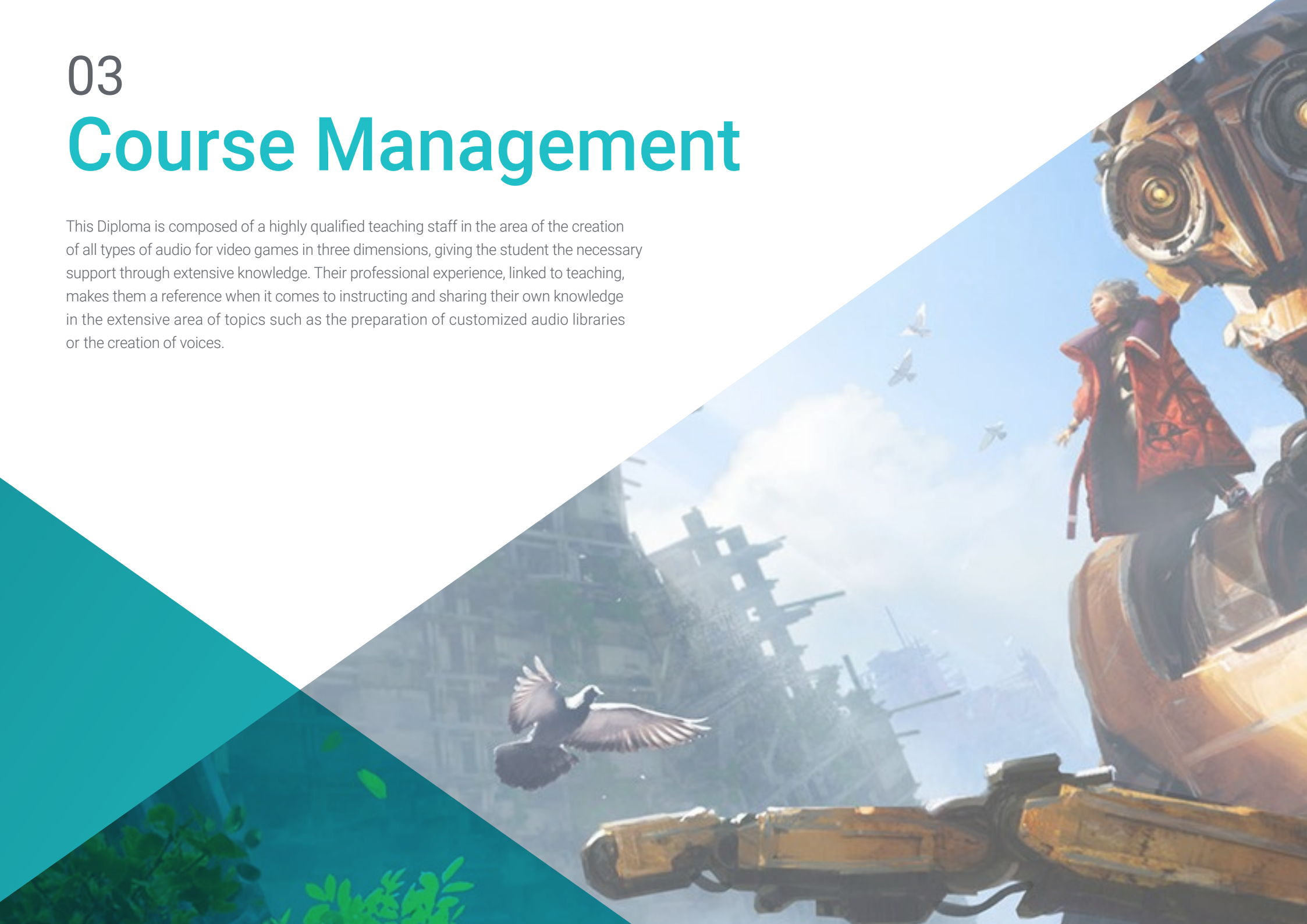
- ◆ Analyze the different types of audio styles in video games and industry trends
- ◆ Examine methods for studying project documentation to build audio
- ◆ Study the main references in order to extract the key points of the sound identity
- ◆ Design the complete 3D video game sound identity
- ◆ Determine the key aspects of creating the video game soundtrack and sound effects for the project
- ◆ Develop the key aspects of working with voice actors and actresses and recording game voices
- ◆ Compile video game audio export methods and formats using current technologies
- ◆ Generate complete sound libraries to be marketed as professional asset packs for development studios



# 03

# Course Management

This Diploma is composed of a highly qualified teaching staff in the area of the creation of all types of audio for video games in three dimensions, giving the student the necessary support through extensive knowledge. Their professional experience, linked to teaching, makes them a reference when it comes to instructing and sharing their own knowledge in the extensive area of topics such as the preparation of customized audio libraries or the creation of voices.







“

*A team of experts in music and sound production will provide you with the best theoretical, practical and additional material you to learn in detail the creation process of for the audiovisual industry area”*

## Management



### Mr. Ortega Ordóñez, Juan Pablo

- Director of Engineering and Gamification Design for the Intervenía Group
- Professor at ESNE of Video Game Design, Level Design, Video Game Production, Middleware, Creative Media Industries, etc
- Advisor in the foundation of companies such as Avatar Games or Interactive Selection
- Author of the book Video Game Design
- Member of the Advisory Board of Nima World



## Professors

### Mr. Núñez Martín, Daniel

- ◆ Producer at Cateffects S.L.
- ◆ Music producer specialized in the composition and design of original music for audiovisual media and video games.
- ◆ Audio designer and music composer at Risin' Goat.
- ◆ Sound technician for audiovisual dubbing at SOUNDUB S.A.
- ◆ Content creator for the Talentum Master in Video Game Creation at Telefónica Educación Digital
- ◆ Higher Technician in Professional Sound Training from the Francisco de Vitoria University
- ◆ Intermediate Degree of Official Music Education by the Conservatorio Manuel de Falla, specializing in Piano and Saxophone



# 04

# Structure and Content

This postgraduate certificate was developed with the purpose of offering a wide range of topics to the student, so that he/she can deepen subject by subject in the concepts required for the realization of audios. Theoretical and practical content designed by the teaching staff, where the demands and quality guidelines will exceed the student's expectations, offering him/her a plus in his/her professional career. The numerous audiovisual materials that will be available will be of great help to complement all the contents provided.







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*Completion of this Degree will provide you with the necessary knowledge to create functional sound effects adapted to the different types of the industry"*

## Module 1. Professional Audio for 3D VR Video Games

- 1.1. Professional 3D Video Games Audio
  - 1.1.1. Video Game Audio
  - 1.1.2. Audio Style Types in Current Video Games
  - 1.1.3. Spatial Audio Models
- 1.2. Preliminary Material Study
  - 1.2.1. Game Design Documentation Study
  - 1.2.2. Level Design Documentation Study
  - 1.2.3. Complexity and Typology Evaluation to Create Audio Projects
- 1.3. Sound Reference Studio
  - 1.3.1. Main References List by Similarity with the Project
  - 1.3.2. Auditory References from Other Media to Give Video Games' Identity
  - 1.3.3. Reference Study and Drawing of Conclusions
- 1.4. Sound Identity Design for Video Games
  - 1.4.1. Main Factors Influencing the Project
  - 1.4.2. Relevant Aspects in Audio Composition: Instrumentation, Tempo, etc
  - 1.4.3. Voice Definition
- 1.5. Soundtrack Creation
  - 1.5.1. Environment and Audio Lists
  - 1.5.2. Definition of Motif, Themes and Instrumentation
  - 1.5.3. Composition and Audio Testing of Functional Prototypes
- 1.6. Sound Effect Creation (FX)
  - 1.6.1. Sound Effects: FX Types and Complete Lists According to Project Needs
  - 1.6.2. Definition of Motif, Themes and Creation
  - 1.6.3. Sound FX Evaluation and Functional Prototype Testing
- 1.7. Voice Creation
  - 1.7.1. Voice Types and Phrase Listing
  - 1.7.2. Search and Evaluation of Voice Actors and Actresses
  - 1.7.3. Recording Evaluation and Testing of Voices on Functional Prototypes







- 1.8. Audio Quality Evaluation
  - 1.8.1. Elaboration of Listening Sessions with the Development Team
  - 1.8.2. All Audio Integration into Working Prototypes
  - 1.8.3. Testing and Evaluation of the Results Obtained
- 1.9. Project Exporting, Formatting and Importing Audio
  - 1.9.1. Video Game Audio Formats and Compression
  - 1.9.2. Exporting Audio
  - 1.9.3. Importing Project Audio
- 1.10. Preparing Audio Libraries for Marketing
  - 1.10.1. Versatile Sound Library Design for Video Game Professionals
  - 1.10.2. Audio Selection by Type: Soundtrack, FX and Voices
  - 1.10.3. Audio Asset Library Marketing

“Completion of this Degree will provide you with the necessary knowledge to create functional sound effects adapted to the different types of of the industry”

# 05 Methodology

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

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





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*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 is the most widely used learning system in the best faculties in the world. 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 we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.



## 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.

With this methodology we have 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, markets, and financial 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.



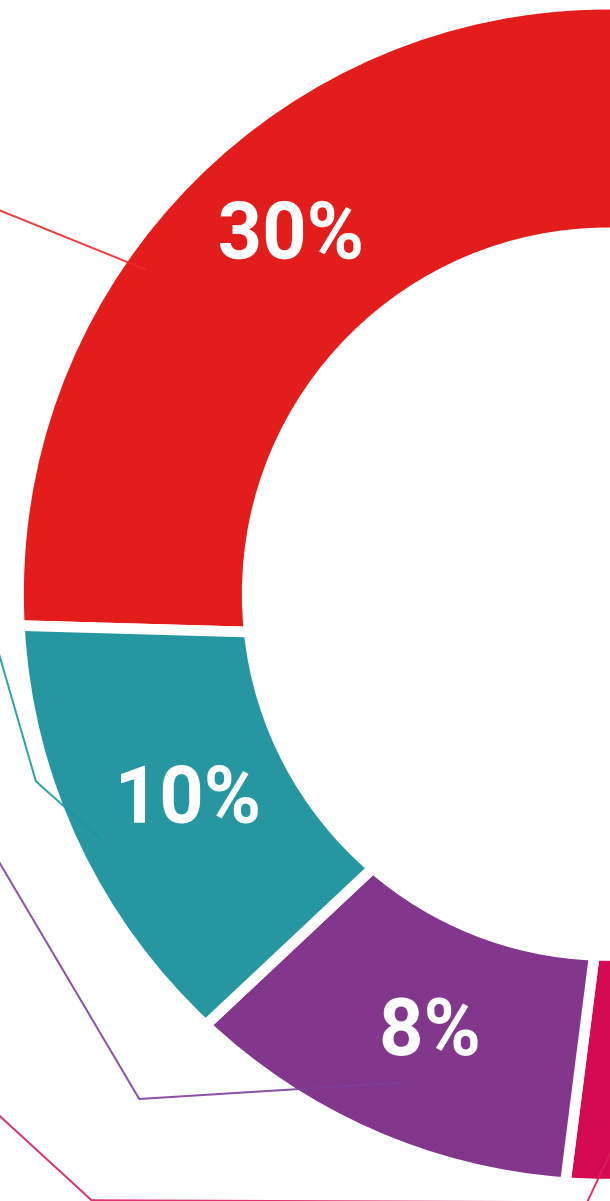
### Practising Skills and Abilities

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

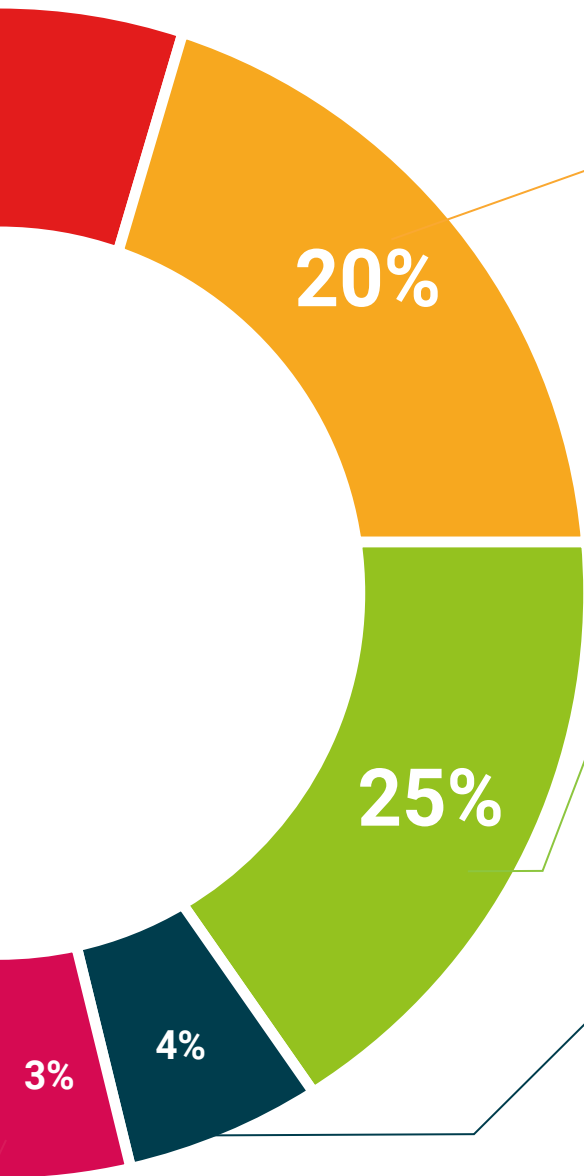


### Additional Reading

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







#### Case Studies

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



#### Interactive Summaries

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

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



#### Testing & Retesting

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



# 06 Certificate

The Postgraduate Certificate in Audio Creation for 3D Video Games guarantees students, in addition to the most rigorous and up-to-date education, access to a certificate issued by TECH Technological University.



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



This **Postgraduate Certificate in Audio Creation for 3D Video Games** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Audio Creation for 3D Video Games**

Official N° of Hours: **150 h.**



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



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