

# Postgraduate Diploma Harmony and Orchestration for Video Games



## Postgraduate Diploma Harmony and Orchestration for Video Games

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/videogames-design/postgraduate-diploma/postgraduate-diploma-harmony-orchestration-video-games](http://www.techtute.com/us/videogames-design/postgraduate-diploma/postgraduate-diploma-harmony-orchestration-video-games)

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# 01

# Introduction

When composing a soundtrack, two of the most important elements are harmony and orchestration. With good harmony, a piece of music makes sense and is pleasant to listen to. And a mastery of orchestration allows the composer to choose the most appropriate instruments for any given piece, bringing them together in a balanced way. Therefore, this program offers the student the possibility to delve into these aspects, always oriented towards video games, so that, at the end of the program, they can create the best soundtracks for the most successful works of the present and the future.







“

*Learn in depth the keys to harmony and musical orchestration and compose great soundtracks for the next blockbuster video games”*

Two of the main keys in musical composition are harmony and orchestration. By mastering these two elements, a musician can develop and create complex pieces dedicated to different fields. However, the world of video games requires specific knowledge that takes into account all of its particularities, so this Postgraduate Diploma in Harmony and Orchestration for Video Games is perfect for those who want to delve deeper into these two issues.

This educational program delves into aspects such as chord construction, inversions, modes and modal harmonic relationships, ethnic and synthetic modes, harmonic colors, dodecaphonism, orchestration for each instrumental family or orchestration techniques for *samplers*, among many others.

In addition, students will enjoy an innovative 100% online teaching methodology that puts the emphasis on practice and adapts to all their circumstances, so that they can combine their professional life with their studies. It will also have a high-level teaching staff, made up of prestigious musical composers, and a series of teaching resources presented in multimedia format that will facilitate the entire learning process.

This **Postgraduate Diploma in Harmony and Orchestration for Video Games** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Case studies presented by experts in sound design and production specialized in videogames
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning.
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Master the particularities of each family of instruments and apply them to your orchestrations for the soundtracks of the most internationally recognized video game soundtracks"*

“

*Proper orchestration is essential for a video game to be successful. Specialize and progress professionally thanks to the new skills that you will develop in this program"*

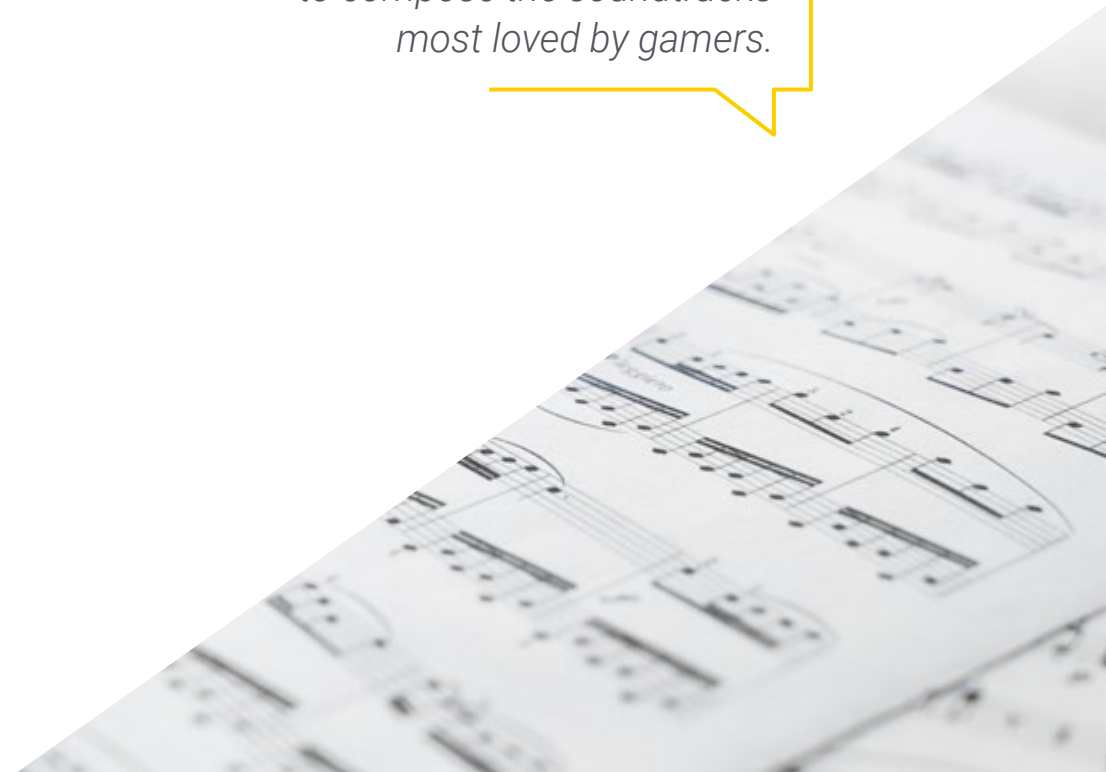
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

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

*TECH's 100% online learning system allows you to choose when and where to study, as it adapts to your personal and professional circumstances.*

*Delve into advanced harmony to compose the soundtracks most loved by gamers.*



# 02

# Objectives

The main objective of this Postgraduate Diploma in Harmony and Orchestration for Video Games is to ensure that the student who completes the program has all the necessary tools to compose great musical pieces for any type of video game. Therefore, by focusing on the concepts of harmony and orchestration, this program prepares professionals to face the current challenges of video game composition, so that they can incorporate into their work all the necessary skills to attract the attention of the major development companies in this industry.





“

*You will be able to compose great soundtracks thanks to everything you will learn about harmony in this Postgraduate Diploma"*



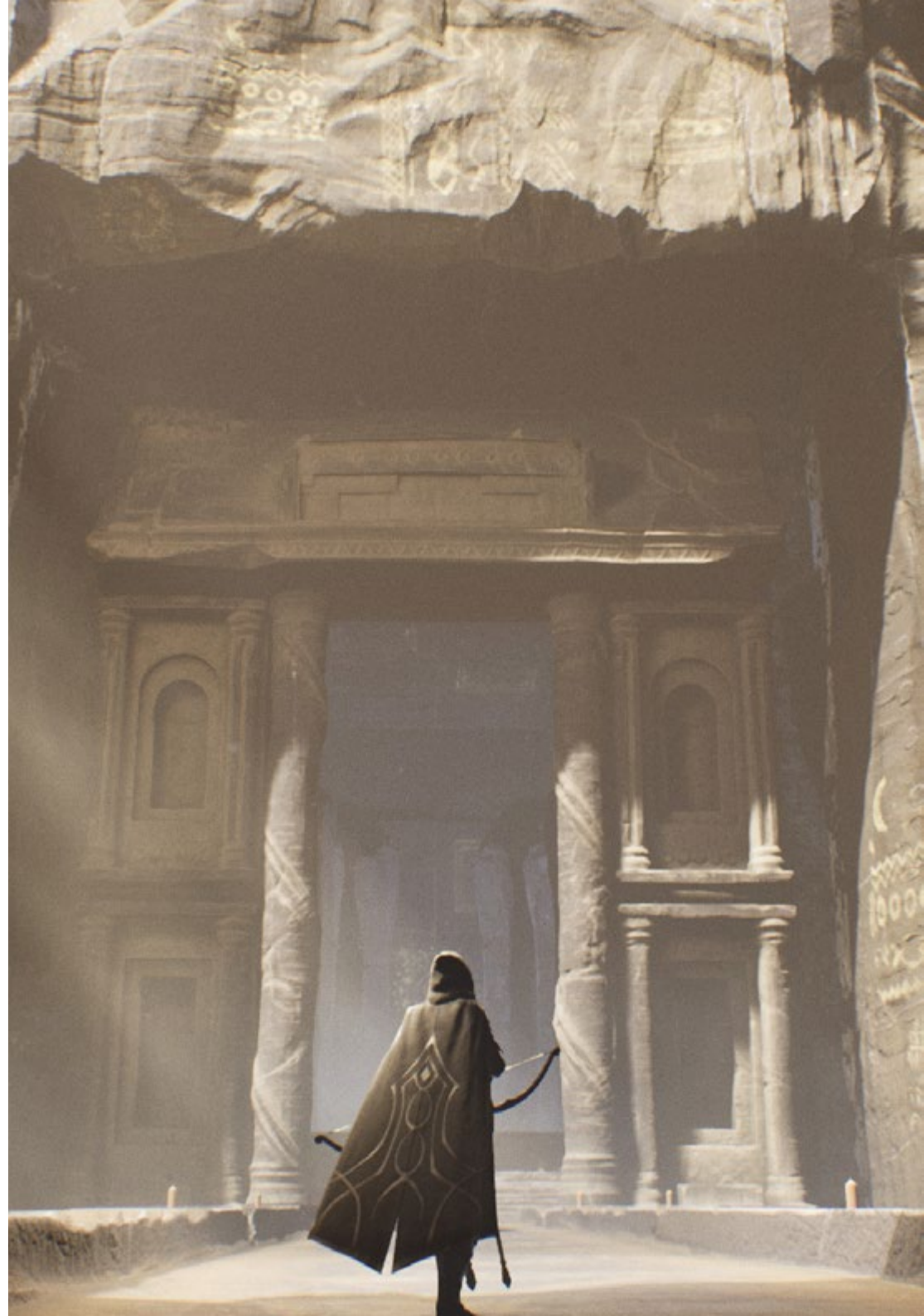
## General Objectives

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- ◆ Understand in depth the construction and basic movements of chords
- ◆ Differentiate and use the different types of modern modes
- ◆ Learn comprehensively how to manage harmonic constructions outside of key
- ◆ Distinguish the different instruments and the proper use of a traditional orchestra and a virtual orchestra
- ◆ Deeply know and handle the different specific techniques of video game composition

“

*This program is what you were looking for: enroll and gain access to the best knowledge about harmony and orchestration applied to video games”*





## Specific Objectives

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### Module 1. 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 2. Advanced Harmony

- ◆ Classify and define modern modes according to their modal degrees and movements
- ◆ 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 3. 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



# 03

# Course Management

This Postgraduate Diploma in Harmony and Orchestration for Video Games is taught by an expert teaching faculty with extensive experience in composition, orchestration and conducting musical formations. In addition, they have in-depth knowledge of the video game industry and know what professional profiles and skills are most in demand, so they will provide students with all the keys to succeed in this complex and exciting sector.







“

*The faculty of this Postgraduate Diploma will help you to acquire all the keys of orchestration and harmony applied to video game composition"*

## Management



### Mr. Raya Buenache, Alberto

- Composition of soundtracks for video games such as Carlos, Rey Emperador or El Velo
- Community of Madrid grant for the creation of musical compositions 2019
- Musical director of the Colmejazz Big Band
- Director of the Colmenar Viejo Youth Symphony Orchestra
- TAI University Arts Center. Degree in Cinematography and Visual Arts. Professor of Music Production
- EA Musical Artistic Center. Artistic Coordinator. Professor of Music Composition for Audiovisual Media and Music Production
- Master's Degree in Composition for Audiovisual Media (MCAV). Katarina Gurska Superior Center
- Advanced Degree in Music, specializing in Performance (Clarinet). Royal Conservatory of Music of Madrid



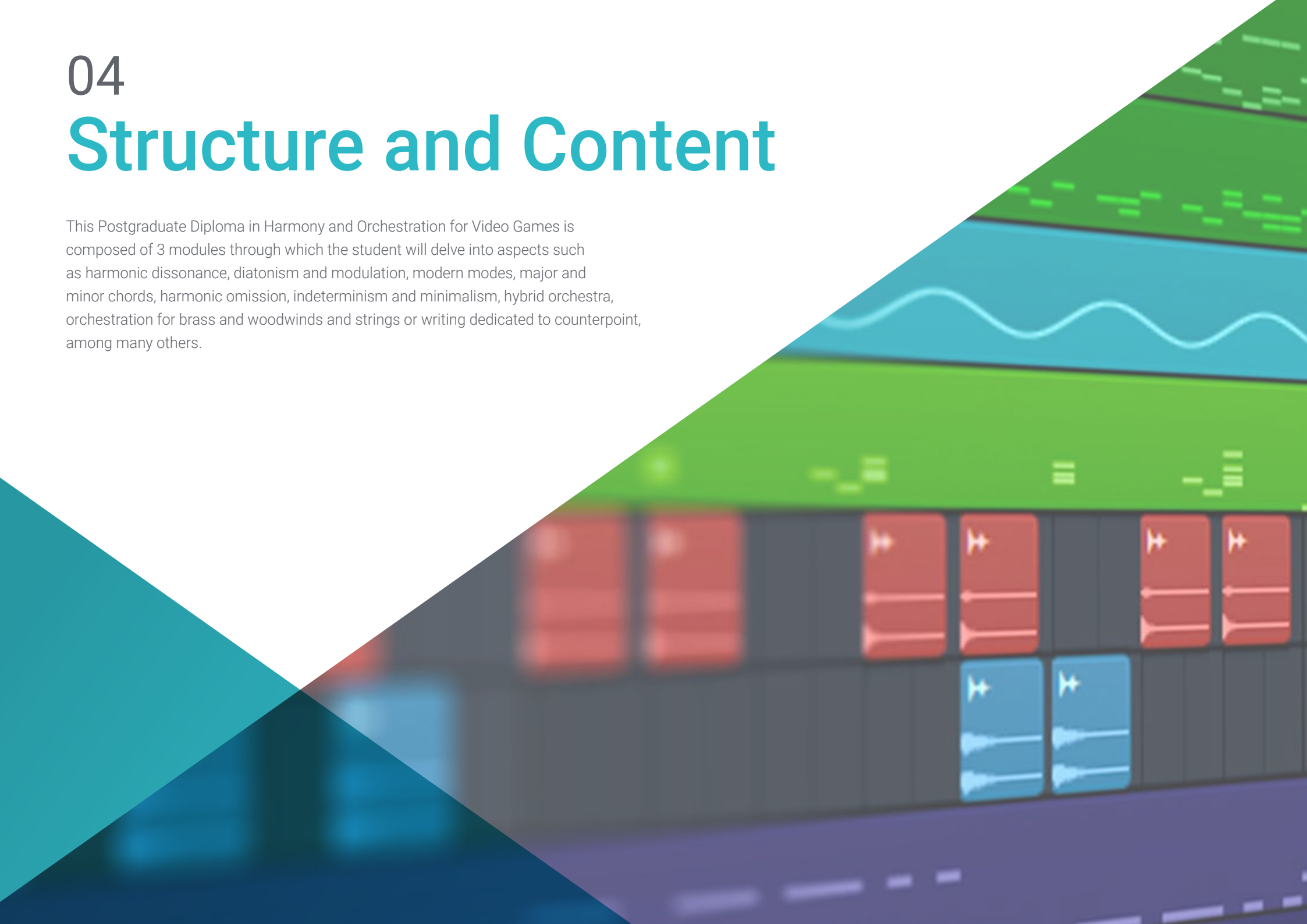




# 04

# Structure and Content

This Postgraduate Diploma in Harmony and Orchestration for Video Games is composed of 3 modules through which the student will delve into aspects such as harmonic dissonance, diatonism and modulation, modern modes, major and minor chords, harmonic omission, indeterminism and minimalism, hybrid orchestra, orchestration for brass and woodwinds and strings or writing dedicated to counterpoint, among many others.





“

*These contents will make you a great specialist in orchestration for videogames”*

## Module 1. Harmony

- 1.1. Harmony
  - 1.1.1. The Pentagram, Clefs, Notes and Figures
  - 1.1.2. Range
  - 1.1.3. Intervals
- 1.2. Chord Construction: Types and Arrangement
  - 1.2.1. Classification
  - 1.2.2. Chord Arrangement
  - 1.2.3. Duplications
- 1.3. Building Chords: Movements
  - 1.3.1. Harmonic Movements
  - 1.3.2. Octaves, Unison and Successive and Resulting Fifths
  - 1.3.3. Combining Chords
- 1.4. Harmonic Progressions
  - 1.4.1. Tonal Functions
  - 1.4.2. Harmonic Rhythm
  - 1.4.3. Cadence
- 1.5. Inversions
  - 1.5.1. The First Inversion
  - 1.5.2. The Second Inversion
  - 1.5.3. Inverted Cadence
- 1.6. Non-Chord Tones: Harmonic Dissonance
  - 1.6.1. Harmonic and Melodic Dissonance
  - 1.6.2. Non-Chord Tones in Harmonic Dissonance
  - 1.6.3. Delay and Appoggiatura
- 1.7. Non-Chord Tones: Melodic Dissonance
  - 1.7.1. Non-Chord Tones in Melodic Dissonance
  - 1.7.2. Pitch Note, Ornaments, Elision, Anticipation and Pedal
  - 1.7.3. Combined Action of Non-Chord Tones
- 1.8. Non-Chord Tones in Chords
  - 1.8.1. Dominant Seventh
  - 1.8.2. Seventh Leading-Tone and Second Degree Seventh
  - 1.8.3. Remaining Seventh Chords

- 1.9. Dominant Harmony
  - 1.9.1. Dominant Harmony
  - 1.9.2. Dominant of the Dominant
  - 1.9.3. Secondary Dominant
- 1.10. Evolution Towards Chromaticism
  - 1.10.1. Diatonism and Modulation
  - 1.10.2. Expressive Chromaticism
  - 1.10.3. Loss of Tonal Function

## Module 2. Advanced Harmony

- 2.1. Modern Modes
  - 2.1.1. Mode Classification
  - 2.1.2. Modal Scale
  - 2.1.3. Modal Operation
- 2.2. Modal Harmonic Relationships
  - 2.2.1. Major and Minor Chords
  - 2.2.2. Modal Cadences
  - 2.2.3. Modal Harmonization
- 2.3. Tonal Use of Modality
  - 2.3.1. Tonal Function of the Modal Chord
  - 2.3.2. Tonal Cadences with Modal Chords
  - 2.3.3. Tonal Use of the Modal Chord
- 2.4. Ethnic Modes
  - 2.4.1. Modal Scales
  - 2.4.2. Tonal Use
  - 2.4.3. Modal Chord
- 2.5. Synthetic Modes
  - 2.5.1. Construction
  - 2.5.2. Modal Scales
  - 2.5.3. Tonal Use
- 2.6. Tonal Use of Ethnic and Synthetic Modes
  - 2.6.1. The Idea
  - 2.6.2. Tonal Functions
  - 2.6.3. The Chord as a Harmonic Color

- 2.7. Harmonic Colors: Tonality and Atonality
    - 2.7.1. Tonality vs Atonality
    - 2.7.2. Chords without a Function
    - 2.7.3. Harmonic Omission
  - 2.8. Harmonic Colors: Constructions
    - 2.8.1. Chord Construction in Different Intervals
    - 2.8.2. Overlapping Chords
    - 2.8.3. Colored Modal Chord
  - 2.9. Extra-Tonal Harmony
    - 2.9.1. Bitonality
    - 2.9.2. Polytonality vs. Atonality
    - 2.9.3. Dodecaphonism and Serialism
  - 2.10. Avant-Garde Music
    - 2.10.1. Random Music
    - 2.10.2. Indeterminism
    - 2.10.3. Minimalism
- ### Module 3. Acoustic and Virtual Orchestration
- 3.1. The Orchestra
    - 3.1.1. Instruments
    - 3.1.2. Formats
    - 3.1.3. Hybrid Orchestra
  - 3.2. Instruments
    - 3.2.1. Structure and Classification
    - 3.2.2. Techniques
    - 3.2.3. Timbre Effects
  - 3.3. String Orchestration
    - 3.3.1. Sound Planes
    - 3.3.2. Contrapuntal vs. Homophonic Writing
    - 3.3.3. Accompanying a Soloist
  - 3.4. Woodwind and String Accompaniment Orchestration
    - 3.4.1. Contrapuntal vs. Homophonic Writing
    - 3.4.2. Use of Wood to Achieve Color Contrasts
    - 3.4.3. Special Effects
  - 3.5. Brass and Woodwind Orchestration with Woodwinds and Strings
    - 3.5.1. Uses and Duplications
    - 3.5.2. Melody, Homophonic and Contrapuntal Writing
    - 3.5.3. Sound Climax and Timbral Effects
  - 3.6. Percussion Section
    - 3.6.1. Instrument Classification
    - 3.6.2. Number and Distribution of Instrumentalists
    - 3.6.3. Notation of Percussion Instruments
  - 3.7. Other Instruments
    - 3.7.1. Keyboard Instruments
    - 3.7.2. String Instruments without a Bow
    - 3.7.3. Orchestration for These Instruments
  - 3.8. Differences between *Samplers* and Real Orchestras
    - 3.8.1. Dynamics, Balance and Panorama
    - 3.8.2. *Layers*
    - 3.8.3. *Key Switches*
  - 3.9. Orchestration Techniques for *Samplers: Patches Ensemble*
    - 3.9.1. Full and Powerful Sound
    - 3.9.2. Using *Patches Ensemble*
    - 3.9.3. Strings: *Sustain, Tremolo and Staccato*
  - 3.10. Orchestration Techniques for *Samplers: Pairing*
    - 3.10.1. Timpani
    - 3.10.2. Orchestra and Percussion Pairing
    - 3.10.3. Choir and Orchestra Pairing



*Enroll now and become a highly valued composer, in demand by the best video game development companies"*

# 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.







“

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

## Case Study to contextualize all content

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

“

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



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





### A learning method that is different and innovative

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

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

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

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.



# 06 Certificate

The Postgraduate Diploma in Harmony and Orchestration for Video Games guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.





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

This program will allow you to obtain your **Postgraduate Diploma in Harmony and Orchestration for Video Games** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Harmony and Orchestration for Video Games**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**





## Postgraduate Diploma Harmony and Orchestration for Video Games

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