Postgraduate Diploma

Graphic Design for Video Games

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Postgraduate Diploma
Graphic Design for Video Games

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

Website: www.techtitute.com/us/videogames-design/postgraduate-diploma/postgraduate-diploma-graphic-design-video-games

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01

Introduction

When talking about a video game that has had a great impact, one of the elements that is most often highlighted is its visual section. Players and fans in general sum it up in one word: graphics. Graphics are a fundamental aspect of video games and that is why large companies strive to have the best specialists in their design team. But to become an expert you have to have adequate training, which you don't get just anywhere. This program offers its students all the knowledge they need in video game graphics so that they can become professionals who are highly sought-after by the best companies in the world.

Design graphics to match the best video games of the future"

Graphic design is one of the most essential tasks in the process of creating a video game. The graphics will determine, to a large extent, the visual quality of the work in question, which is why companies take the utmost care in creating them and, for this, they try to count on the best professionals in the world.

However, graphic design is a very complex discipline, and it is not easy to find experts in the field. Therefore, this Postgraduate Diploma in Graphic Design for Video Games is the perfect solution for all those who wish to become specialists who are highly demanded by the industry.

The contents and methodology of this program make it the best way to access a large company in the video game sector, thanks to the attention paid to preliminary design, in order to then convert it into 2D and 3D, understand the principles of animation and create motion graphics that adapt to any type of project.

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

- The development of practical cases presented by experts in video game design
- 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

You will be able to design high-quality graphics thanks to this Postgraduate Diploma"

You'll be able to create graphics like the ones you see in your favorite video games"

The industry needs talented people like you.

Your favorite companies will want to count on you.

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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 training programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02

Objectives

The main objective of this Postgraduate Diploma in Graphic Design for Video Games is to provide students with the best skills and tools to create graphics at the level of the best companies in the world. Therefore, TECH's aim is to encourage its students to aspire to the highest standards, and therefore offers high-level qualifications that help them to achieve their goals, no matter how difficult they may be to reach.

Achieve all your professional goals with this Postgraduate Diploma"

General objectives

- Study the perspective of drawing and the different methods of fitting human and animal figures
- Analyze how light, color, textures and movement affect the quality of the graphic work
- Learn how to correctly compose realistic and visually appealing environments
- Explore the different digital graphic resources, as well as the most commonly used digital supports
- Expand knowledge of the implementation of characters in video games
- Build a professional portfolio that captures and showcases all of the student's capabilities
- Obtain a general mastery of the After Effects program
- Understand the elements that make up motion graphics
- Acquire skills in the use of the different tools used to design motion graphics
- Gain knowledge about how to import and export files correctly

Don't wait any longer: this qualification is what you were looking for"

Specific objectives

Module 1. Graphic and Artistic Expression

- Gain knowledge about the theory and harmony of color in order to know how it is perceived
- Unravel all the elements that make up a good video game scenario
- Understand the use of different software tools to create and retouch images and volumetric structures, with special emphasis on Adobe Photoshop
- Differentiate the conception of a cartoon character and atmosphere from a realistic character and atmosphere

Module 2. 2D Animation

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

Module 3. Motion Graphics

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

03

Structure and Content

This Postgraduate Diploma in Graphic Design for Video Games has been created in order to transmit the best knowledge of this subject to students, helping them to achieve their professional goals. As such, this qualification offers its students specialized content in graphic and artistic expression, 2D animation and motion graphics, so that they can carry out a complete and comprehensive learning process that will allow them to work in the best companies in the world.

This content will make you a great expert"

Module 1. Graphic and Artistic Expression

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

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

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

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

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

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

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

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

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

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

Module 2. 2D Animation

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

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

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

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

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

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

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

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

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

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

Module 3. Motion Graphics

3.1. Introduction to After Effects
- 3.1.1. What is After Effects and What is it For? Illustrative Examples
- 3.1.2. Project and Interface Settings
- 3.1.3. Composition Settings, Brushes and Windows
- 3.1.4. Workflow Definition: Creation of a Basic Project
- 3.1.5. Preliminary Video Issues
- 3.1.6. Color Depth, Display Formats, Audio and Video Compression

3.2. After Effects Basics
- 3.2.1. Import
- 3.2.2. Basic Tools. Layer Types and Options
- 3.2.3. Transformation Properties and Origin of Coordinates
- 3.2.4. H264 Basic Export

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

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

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

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

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

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

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

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

You won't find a better program to specialize in Graphic Design for Video Games"

04

Methodology

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

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

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

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

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

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

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

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

Relearning Methodology

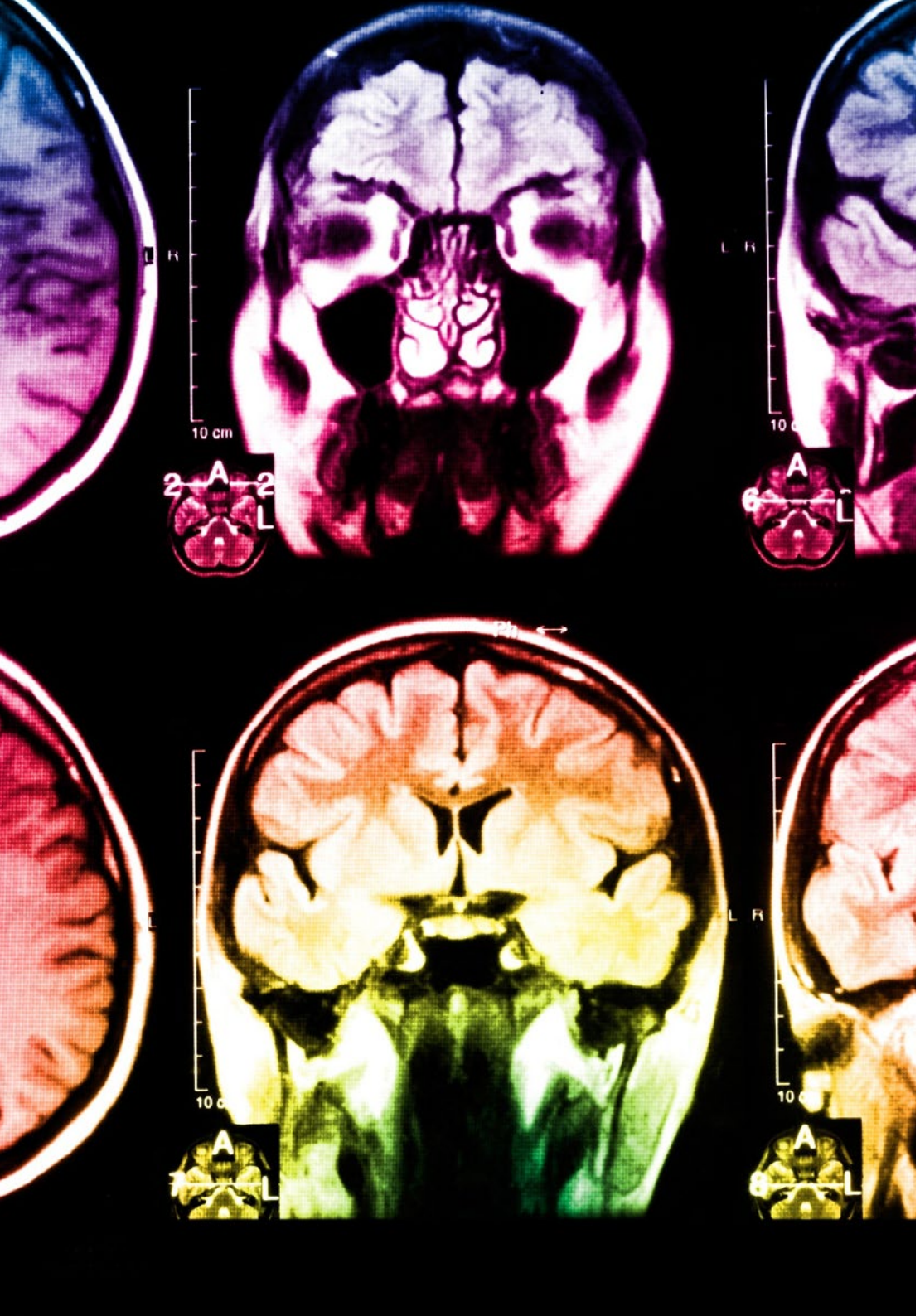
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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

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

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

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



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

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

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

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

Study Material

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

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

Classes

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

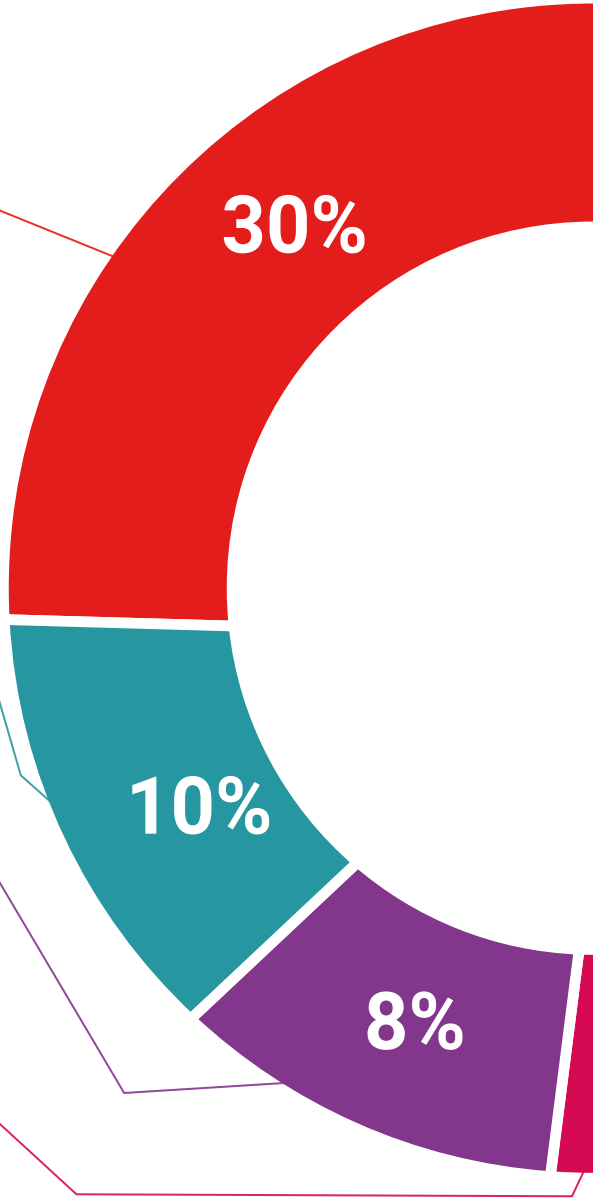
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

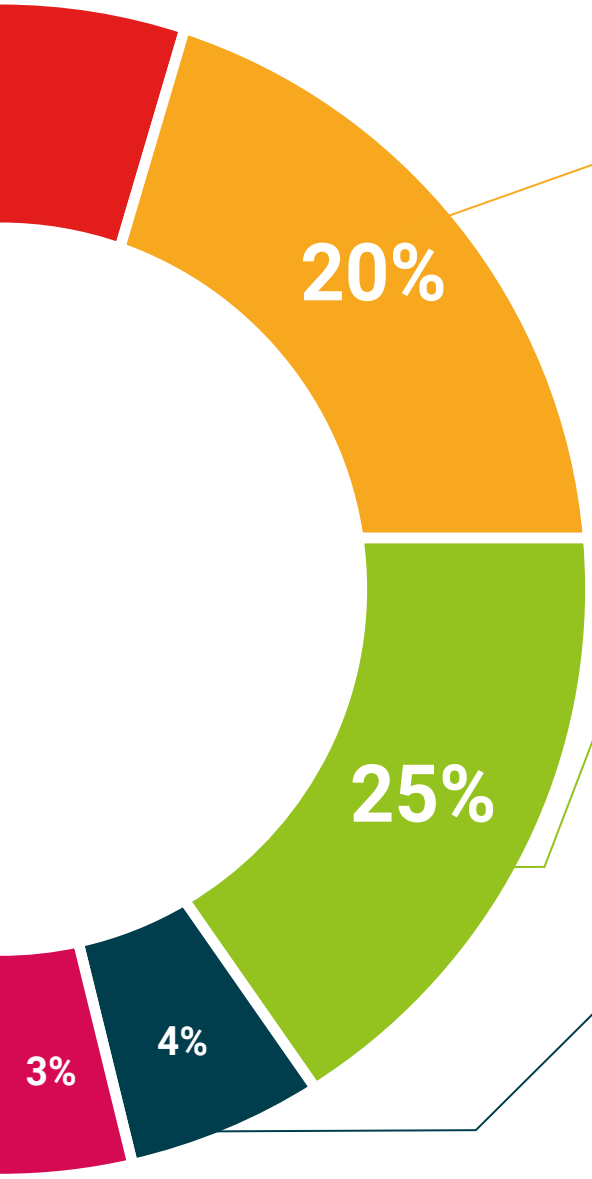
Practising Skills and Abilities

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

Additional Reading

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





Case Studies

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

Interactive Summaries

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

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

Testing & Retesting

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

05

Certificate

The Postgraduate Diploma in Graphic Design for Video Games guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

This **Postgraduate Diploma in Graphic Design for 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Diploma in Graphic Design for Video Games**

Official Nº of hours: **450 h.**


tech technological university

Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Graphic Design for Video Games

This is a qualification awarded by this University, equivalent to 450 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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Postgraduate Diploma
Graphic Design for Video Games

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

Postgraduate Diploma

Graphic Design for Video Games

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