

# Postgraduate Certificate

## Introduction to Image Processing





## Postgraduate Certificate Introduction to Image Processing

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

Website: [www.techtitute.com/in/information-technology/postgraduate-certificate/introduction-image-processing](http://www.techtitute.com/in/information-technology/postgraduate-certificate/introduction-image-processing)



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01

# Introduction

Image processing for use in designs is one of the skills that graphic designers must master. In order to achieve this in a simple way, we offer the opportunity to acquire the skills of a specialized professional through a program that will ensure job growth without problems of conciliation. A unique opportunity for development and promotion.



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*A high-intensity program about the use and development  
of graphic shapes that will allow you to work with the  
solvency of the best professionals in the sector"*

This Postgraduate Certificate in Introduction to Image Processing has been created to offer an interesting, interactive and, above all, very effective process to learn everything related to the subject. To achieve this, a clear and continuous growth path is offered, which is also 100% compatible with other occupations.

Through an exclusive methodology, this Postgraduate Certificate will lead you to know all the characteristics that the professional needs to stay at the forefront and knowledge the changing phenomena of this form of communication.

Therefore, this program will address the aspects that a designer needs to know in order to perform their functions with confidence. A program that will help students to achieve success in the challenges of a first-class professional.

The Postgraduate Certificate in Introduction to Image Processing is presented as a viable option for professionals who decide to work independently but also to be part of any organization or company. An interesting avenue of professional development that will benefit from the specific knowledge that we now make available to you in this program.

This **Postgraduate Certificate in Introduction to Image Processing** contains the most complete and up-to-date educational program on the market. The most important features include:

- ◆ Development of a Large Number of Case Studies Presented by Experts
- ◆ Graphic, schematic, and highly practical contents
- ◆ The latest developments and cutting-edge advances in this field
- ◆ Practical Exercises where the Self-assessment Process can be Carried Out in Order to Improve Learning
- ◆ Innovative and highly efficient 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

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*Do not miss the opportunity to study this Postgraduate Certificate in Introduction to Image Processing with TECH. It's the perfect opportunity to advance your career”*

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*All the necessary knowledge for graphic designers in this field, compiled in a highly efficient Postgraduate Certificate program, which will optimize your effort with the best results"*

The development of this Postgraduate Certificate is focused on the practice of the proposed theoretical learning. Through the most effective teaching systems, proven methods imported from the most prestigious universities in the world, you will be able to acquire new knowledge in a practical way. In this way, TECH strives to convert its efforts into real and immediate competencies.

The online system is another strength of the educational program. With an interactive platform that has the advantages of the latest technological developments, the most interactive digital tools made available. This way, it is possible to offer a way of learning that is totally adaptable to students' needs, so they can perfectly combine this program with their personal or working life.

*A practical and intensive program that will give you all the tools you need to work in this field, in a specific and concrete Postgraduate Certificate.*

*A program created to allow you to implement your acquired knowledge into your daily practice in an almost immediate way.*



02

# Objectives

The objective of this Postgraduate Certificate in Introduction Image Processing is to offer professionals a complete program to acquire knowledge and skills for professional practice in this sector, with the confidence of learning from the best and a form of learning based on practice that will allow to they will the program with the necessary knowledge to perform the work with total confidence and competence.



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An opportunity created for professionals who are looking for an intensive and effective course with which to take a significant step forward in their profession”



### General Objective

- ◆ Learn all image processing tools and systems for graphic design

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*Take the step to get up to date on the latest developments in Introduction to Image Processing”*





## Specific Objectives

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- ◆ Know the importance of images throughout history and at present, as well as the difference between analog and digital images
- ◆ Value and respect the photographic legacy as a contribution to the language of the contemporary image
- ◆ Represent objects and ideas artistically (image) and technically (graphics)
- ◆ Have a basic knowledge of the Adobe Photoshop tool
- ◆ Capture, manipulate and prepare the image for use in different media
- ◆ Master the graphic-plastic resources of two-dimensional representation

03

# Structure and Content

The structure of the contents has been designed by a team of professionals, aware of the current relevance of professional development in order to advance in the labor market with confidence and competitiveness, and to practice their profession with the excellence that only the best education can provide.



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*This Postgraduate Certificate contains the most complete and up-to-date program on the market”*

## Module 1. Image

- 1.1. Image throughout History
  - 1.1.1. Brief History of Image
  - 1.1.2. Image, Society Communication
  - 1.1.3. Nature of an Image
  - 1.1.4. Bibliographical References
- 1.2. Introduction to an Image
  - 1.2.1. Analog Images
  - 1.2.2. Digital Images
  - 1.2.3. Sources and Image Creation
  - 1.2.4. The Importance of Image in Design
- 1.3. Images
  - 1.3.1. Vectorial Images
  - 1.3.2. Bits Map
  - 1.3.3. Features
  - 1.3.4. Where to Find Them?
- 1.4. Photographic Image
  - 1.4.1. Analog and Digital Camera Settings
  - 1.4.2. Depth of Field or Hyperfocal Distance
  - 1.4.3. Camera Focus
  - 1.4.4. Focal Length
- 1.5. Digital Image Components
  - 1.5.1. Digital Images and Their Current Importance
  - 1.5.2. Resolution
  - 1.5.3. Dimensions
  - 1.5.4. Bit Depth
- 1.6. Introduction to Photoshop I: Basic Concepts
  - 1.6.1. Create or Open Images
  - 1.6.2. Photoshop Interface
  - 1.6.3. Zoom and Scroll Tools
  - 1.6.4. Undo a Command
  - 1.6.5. Save Images



- 1.7. Introduction to Photoshop II: Resizing
  - 1.7.1. Changing Size
  - 1.7.2. Resolution
  - 1.7.3. Trimming and Adjustment
  - 1.7.4. Enlarge a Canvas
- 1.8. Photoshop Layers
  - 1.8.1. What Are Layers?
  - 1.8.2. Basic Concepts
  - 1.8.3. Resize a Layer
  - 1.8.4. Add Images to a Layer
  - 1.8.5. Unblock a Layer
- 1.9. Improve Image Quality in Photoshop
  - 1.9.1. Brightness and Contrast
  - 1.9.2. Color Intensity
  - 1.9.3. Tone and Saturation
  - 1.9.4. Adjustment Layers
  - 1.9.5. Levels and Curves
  - 1.9.6. Exhibition
  - 1.9.7. Light and Shade
- 1.10. Photoshop Retouching
  - 1.10.1. Repair Tools
  - 1.10.2. Cloning Buffer
  - 1.10.3. Practice 1: Retouching Image Quality
  - 1.10.4. Practice 2: Fix an Old Image

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*A unique, key, and decisive  
educational experience to boost your  
professional development”*

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.



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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.

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*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.

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*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 Information Technology 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. Throughout the course, students 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 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

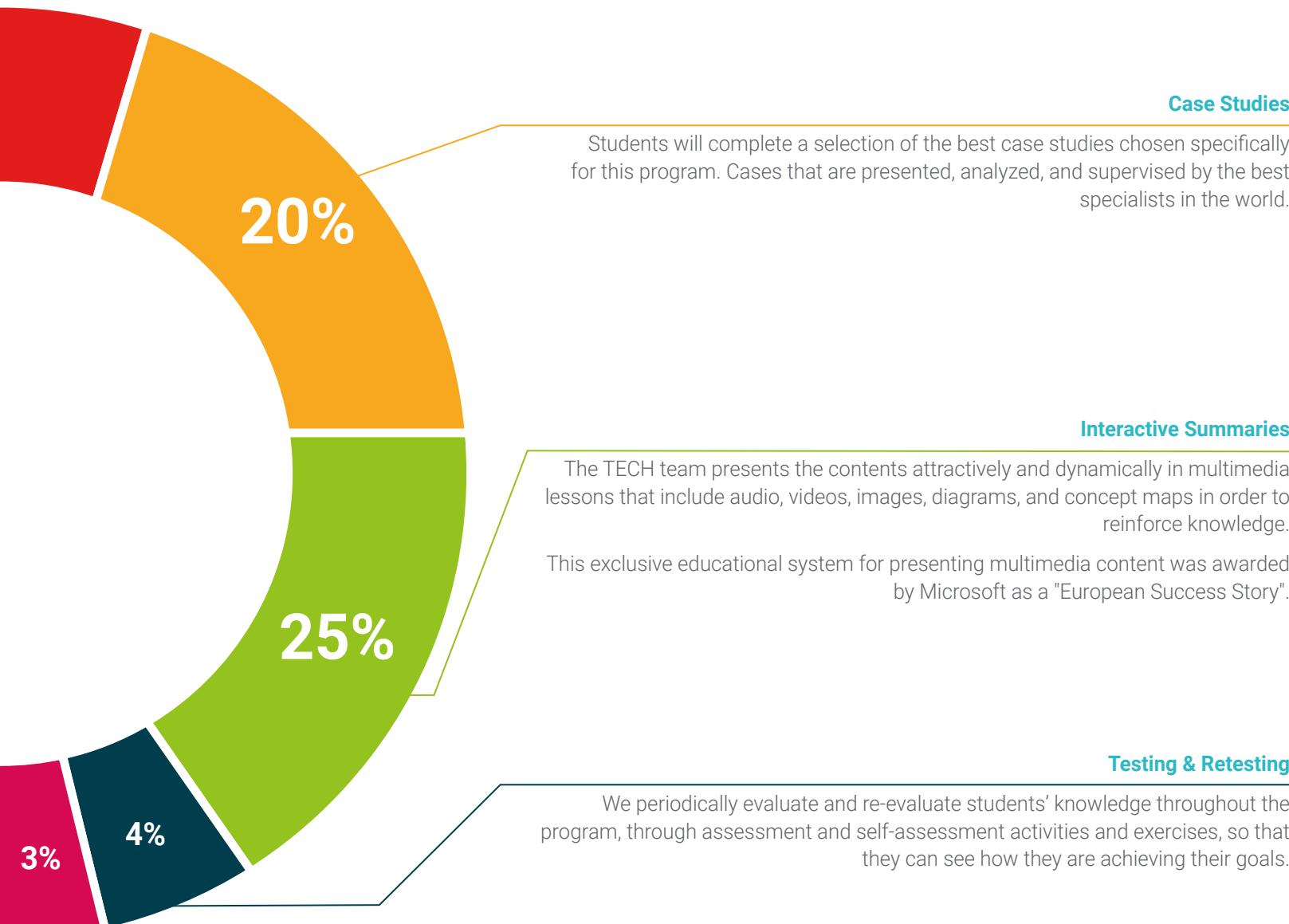
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### 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.





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# Certificate

The Postgraduate Certificate in Introduction to Images Processing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate 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 Introduction to Image Processing** 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 certificate 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 Introduction to Image Processing**

Official N° of Hours: **150 h.**



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



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