

# Postgraduate Diploma CMF Design (Color, Material and Finish)



## Postgraduate Diploma CMF Design (Color, Material and Finish)

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

Website: [www.techtute.com/us/design/postgraduate-diploma/postgraduate-diploma-cmf-design-color-material-finish](http://www.techtute.com/us/design/postgraduate-diploma/postgraduate-diploma-cmf-design-color-material-finish)

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# 01

# Introduction

With this program, the professional will learn the best finishing methods, starting from the selection of the material and colors, so that they can achieve their objectives in the creation and elaboration of different products. Thus, throughout this program the designer will delve into techniques such as visual inspections applied to materials or the semiotics and semantics of color. They will therefore be trained to be able to apply the most appropriate procedures for each of their products, thereby significantly improving their career prospects. This will be done through a 100% online teaching system which will allow them to continue working while studying, since it is completely adapted to their personal circumstances.





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*Quickly and efficiently learn the basics of the use of color and the main design materials used, becoming an expert in product finishing thanks to this program"*

Color and material are two of the main elements which make up a design. Therefore, these issues will determine to a large extent their visual appearance and usability, so, depending on the specific product in question, choosing them correctly is essential. However, there are not many specialists who know the particularities of color and its impact on people and buyers. Similarly, material selection is sometimes treated as a secondary aspect of the design, a decision that can lead to project failure.

For that reason, this Postgraduate Diploma provides the professional with the most complete and up-to-date content in this field, so that, upon completing the course, they will be capable of choosing the best options for each initiative. In this way, their designs will be even closer to success. Throughout this program, the student will be able to integrate the most recent innovations into their daily work, dealing with questions such as the properties of color, its psychology and harmony, or intelligent and dynamic materials.

The program takes place through an online learning method, allowing the student to continue carrying out their professional work without interruptions, fixed schedules or inconvenient travel. In addition, the student will have access to the best multimedia resources: videos, interactive summaries, master classes and practical activities, among others. With these, the teaching will be a lot more simple and effective, guaranteeing that students make the most of each minute invested in the course.

This **Postgraduate Diploma in CMF Design (Color, Material and Finish)** contains the most complete and up-to-date educational program on the market. The most important features include:

- ◆ Practical cases presented by experts in design.
- ◆ The graphic, schematic, and eminently 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.
- ◆ 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.



*This program is presented using a 100% online methodology so it can be fully adapted to your personal and professional circumstances”*

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*Become a great specialist in the use of color and materials thanks to this program, specifically created to boost your professional career”*

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.

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 train 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.

*Every minute you invest in this degree will be put to good use thanks to its cutting-edge educational technology.*

*Learn how to perform all kinds of tests to find the perfect material for your design thanks to this Postgraduate Diploma.*



# 02 Objectives

The main goal of this Postgraduate Diploma in CMF Design (Color, Material and Finish) is to provide the professional with the main tools of color and material analysis to give the best finish to each of their products. Thus, the designer will know the best combinations depending on the type of product they are dealing with, taking into account its final appearance and functionalities.







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*The selection of color and material is essential in product design. With this Postgraduate Diploma you will know the best techniques to choose and how to combine them adequately”*



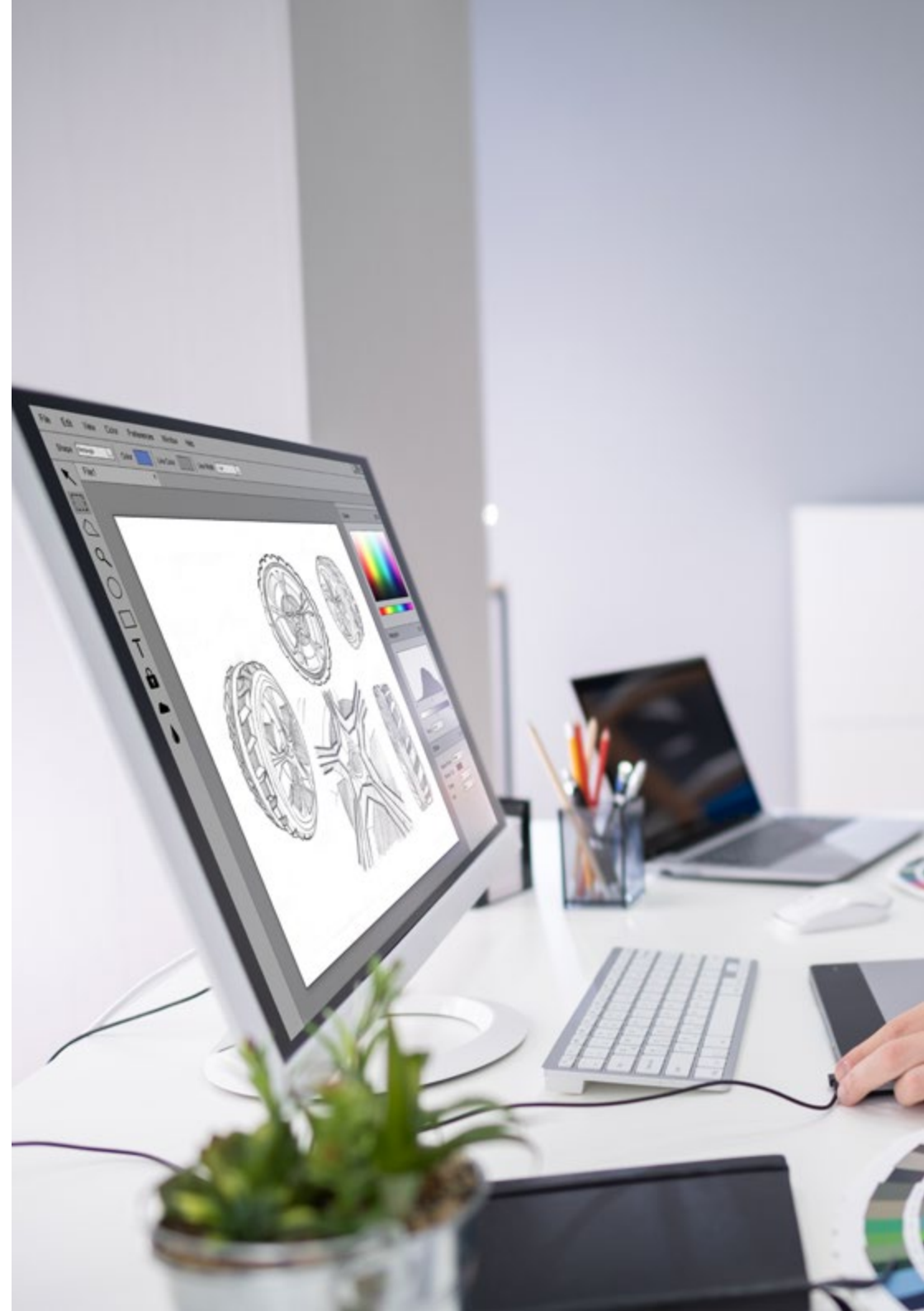
## General Objectives

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- ◆ Gain theoretical and practical knowledge and understanding of the phenomenon of color in its different fields.
- ◆ Understand the basic schemes of compositional arrangement in design.
- ◆ Know how to synthesize one's interests through observation and critical thinking, translating them into artistic creations.
- ◆ Learn to plan, develop and present artistic productions appropriately, using effective production strategies and with their own creative contributions.
- ◆ Acquire theoretical and practical methodological knowledge necessary for the realization of technical projects.



*Become a true specialist in color and materials for product design thanks to this specialist program”*





## Specific Objectives

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### Module 1. Color and Shape

- ◆ Know the different tools and current resources for the use of color in design and handle the different means of color application, both manual and digital, in the design process.
- ◆ Understand how to apply color by taking advantage of chromatic resources and international standard dimensions to achieve specific objectives in design projects.
- ◆ Analyze and differentiate between the laws of visual perception with the nomenclature and the specific language of the specialty.

### Module 2. Materials

- ◆ Know the principles of nanomaterials
- ◆ Understand, analyze and evaluate the processes of corrosion and degradation of materials.
- ◆ Evaluate and analyze the different techniques of non-destructive tests on materials

### Module 3. Design Materials

- ◆ Work with the most appropriate materials in each case in the field of product design
- ◆ Explain and describe the main families of materials, their manufacturing, types, properties, etc.

# 03

## Structure and Content

The contents of this Postgraduate Diploma in CMF Design (Color, Material and Finish) have been structured in 3 specialized modules. This will allow the professional to delve into issues such as: models and standardization of color, color applied to landscape design, properties and composition of materials, destructive and non-destructive testing or regulations and legislation on risk prevention when working with various materials.





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*In this program you will find all the keys to product design based on color and material”*

## Module 1. Color and Shape

- 1.1. Color Theory
  - 1.1.1. Perception of Shape and Space
  - 1.1.2. Color. Definition
  - 1.1.3. Perception of Color
  - 1.1.4. Properties and Dimensions of Color
  - 1.1.5. Classification of Color
- 1.2. Color Perception
  - 1.2.1. The Human Eye
  - 1.2.2. Vision of Colors
  - 1.2.3. Variable in Color Perception
  - 1.2.4. Non-Visual Perception of Color
- 1.3. Models and Standardization of Color
  - 1.3.1. History of Color
    - 1.3.1.1. Primary Theories
    - 1.3.1.2. Leonardo Da Vinci
    - 1.3.1.3. Isaac Newton
    - 1.3.1.4. Moses Harris
    - 1.3.1.5. Goethe
    - 1.3.1.6. Runge
    - 1.3.1.7. Chevreul
    - 1.3.1.8. Rood
    - 1.3.1.9. Munsell
    - 1.3.1.10. Ostwald
  - 1.3.2. Visual Perception
    - 1.3.2.1. Absorption and Reflection
    - 1.3.2.2. Pigmentation Molecules
  - 1.3.3. Color Attributes
    - 1.3.3.1. Tone
    - 1.3.3.2. Luminance
    - 1.3.3.3. Saturation
  - 1.3.4. Hot and Cold Colors
  - 1.3.5. Harmony in Colors
  - 1.3.6. Contrast
  - 1.3.7. Effects of Color
    - 1.3.7.1. Size
    - 1.3.7.2. Transparency, Weight and Mass
- 1.4. Semiotics and Semantics of Color
  - 1.4.1. Semiotics of Color
  - 1.4.2. Description of Color
  - 1.4.3. Colors: Material, Lights, Perceptions and Sensations
  - 1.4.4. Color and Material
  - 1.4.5. The Truth of a Color
  - 1.4.5. Perception of Color
  - 1.4.6. Weight of a Color
  - 1.4.7. Dictionary of a Color
- 1.5. Color in the Design
  - 1.5.1. Chromatic Trends
  - 1.5.2. Graphic Design
  - 1.5.3. Interior Design
  - 1.5.4. Architecture
  - 1.5.5. Landscape Design
  - 1.5.6. Fashion Design
- 1.6. Composition
  - 1.6.1. General aspects
    - 1.6.1.1. Codes Used
    - 1.6.1.2. Degree of Originality and Banality
    - 1.6.1.3. Degree of Iconicity and Abstraction
  - 1.6.2. Configurational Organization of the Image: Relationship Between the Background and the Figure
  - 1.6.3. Configurational Organization of the Image: Gestalt Laws
  - 1.6.4. Configurational Organization of the Image: Relationship Between the Background and the Figure
    - 1.6.4.1. Balance: Static or Dynamic. Focal or Orthogonal System
    - 1.6.4.2. Proportions
    - 1.6.4.3. Symmetry
    - 1.6.4.4. Movement and Rhythm

- 1.6.5. Field Study
- 1.7. Functions of the Image
  - 1.7.1. Representation
    - 1.7.1.1. Cartographic
    - 1.7.1.2. Science
    - 1.7.1.3. Architectural
    - 1.7.1.4. Projectual
  - 1.7.2. Persuasive
  - 1.7.3. Artist
- 1.8. Psychology of Color
  - 1.8.1. Warm and Cold Colors
  - 1.8.2. Physiological Effects
  - 1.8.3. Symbolism of Colors
  - 1.8.4. Personal Preferences on Colors
  - 1.8.5. Emotional Effects
  - 1.8.6. Local and Expressive Color
- 1.9. Meaning of Color
  - 1.9.1. Blue
  - 1.9.2. Red
  - 1.9.3. Yellow
  - 1.9.4. Green
  - 1.9.5. Black
  - 1.9.6. White
  - 1.9.7. Orange
  - 1.9.8. Purple
  - 1.9.9. Pink
  - 1.9.10. Gold
  - 1.9.11. Silver
  - 1.9.12. Brown
  - 1.9.13. Gray
- 1.10. Use of Color
  - 1.10.1. Sources of Dyes and Pigments
  - 1.10.2. Lighting

- 1.10.3. Mixture of Oils and Acrylics
- 1.10.4. Glazed Ceramics
- 1.10.5. Colored Glass
- 1.10.6. Color Printing
- 1.10.7. Photography in Color

## Module 2. Materials

- 2.1. Properties of the Materials
  - 2.1.1. Mechanical Properties
  - 2.1.2. Electrical Properties
  - 2.1.3. Optic Properties
  - 2.1.4. Magnetic Properties
- 2.2. Metallic Materials I. Ferrous
- 2.3. Metallic Materials II. Non- Ferrous
- 2.4. Polymeric Materials
  - 2.4.1. Thermoplastics
  - 2.4.2. Thermosetting Plastics
- 2.5. Ceramic Materials
- 2.6. Compound Materials
- 2.7. Biomaterials
- 2.8. Nanomaterials
- 2.9. Corrosion and Degradation of Materials
  - 2.9.1. Types of Corrosion
  - 2.9.2. Oxidation of Metals
  - 2.9.3. Corrosion Control
- 2.10. Non-Destructive Tests
  - 2.10.1. Visual Inspections and Endoscopies
  - 2.10.2. Ultrasound
  - 2.10.3. Radiographies
  - 2.10.4. Eddy Currents
  - 2.10.5. Magnetic Particles
  - 2.10.6. Penetrating Liquids

2.10.7. Infra Red Thermography

### Module 3. Design Materials

- 3.1. Material as Inspiration
  - 3.1.1. The Search for Materials
  - 3.1.2. Classification
  - 3.1.3. Material and its Context
- 3.2. Design Materials
  - 3.2.1. Common Uses
  - 3.2.2. Contraindications
  - 3.2.3. Combination of Materials
- 3.3. Art and Innovation
  - 3.3.1. Materials in Art
  - 3.3.2. New Materials
  - 3.3.3. Compound Materials
- 3.4. Physical
  - 3.4.1. Basic Concepts
  - 3.4.2. Properties of the Materials
  - 3.4.3. Mechanical Tests
- 3.5. Technology
  - 3.5.1. Intelligent Materials
  - 3.5.2. Dynamic Materials
  - 3.5.3. The Future in Materials
- 3.6. Sustainability
  - 3.6.1. Procurement
  - 3.6.2. Use
  - 3.6.3. Final Management
- 3.7. Biomimicry
  - 3.7.1. Reflection
  - 3.7.2. Transparency





- 3.7.3. Other techniques
- 3.8. Innovation
  - 3.8.1. Success Stories
  - 3.8.2. Research in Materials
  - 3.8.3. Sources of Research
- 3.9. Risk Prevention
  - 3.9.1. Safety Factor
  - 3.9.2. Fire
  - 3.9.3. Breakage
  - 3.9.4. Other Risks
- 3.10. Regulations and Legislation
  - 3.10.1. Regulations According to Application
  - 3.10.2. Regulations According to Sector
  - 3.10.3. Regulations According to Location

“ *Its flexible and innovative teaching methodology is combined with the most advanced content in the field. This Postgraduate Diploma is your best opportunity to progress professionally*”



# 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"*

## At TECH we use the Case Method

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

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



*We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition.*

## A learning method that is different and innovative.

This intensive Design program at TECH Global University will prepare you to face all the challenges in this area, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH you will use Harvard *case studies*, with which we have a strategic agreement that allows us to provide our students with material from the best university the world.

“*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 by 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.



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

## Relearning Methodology

Our university is the first in the world to combine the Harvard University *case studies method* with a 100% online learning system based on repetition, combining 8 different didactic elements in each lesson.

We enhance Harvard *case studies* 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 university 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.



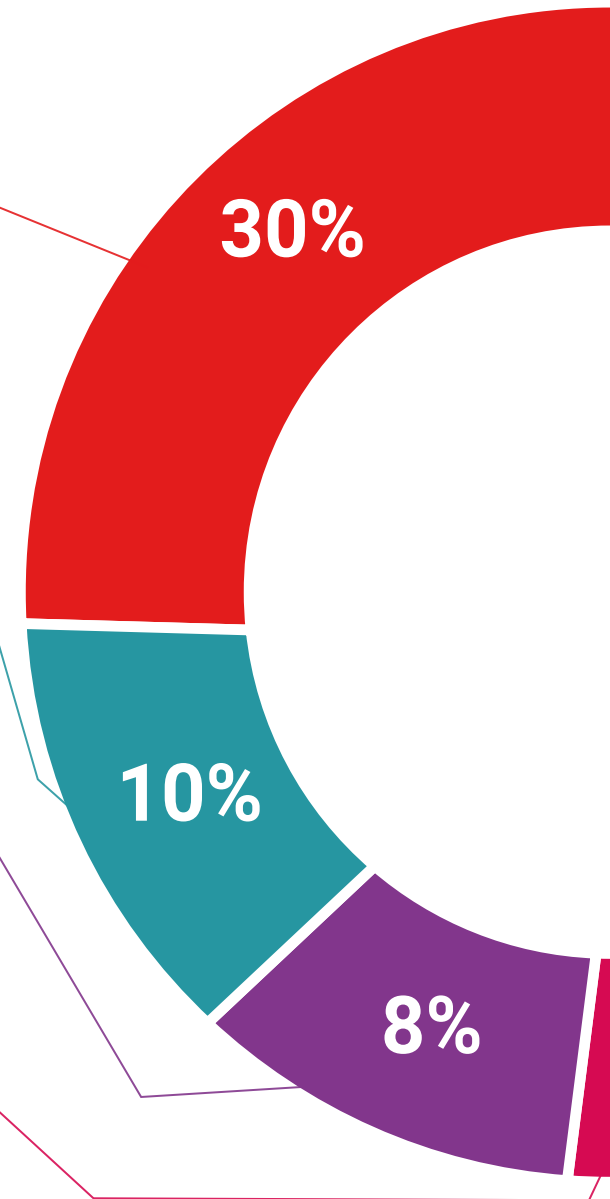
### Practising Skills and Abilities

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 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

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management 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 multimedia content presentation training Exclusive system 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 your goals.



# 05 Certificate

The Postgraduate Diploma in CMF Design (Color, Material and Finish) guarantees, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Global University.





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*Successfully complete this master's degree and receive your qualification without travel or laborious paperwork"*

This program will allow you to obtain your **Postgraduate Diploma in CMF Design (Color, Material and Finish)** 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 CMF Design (Color, Material and Finish)**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development language  
classroom



**Postgraduate Diploma**  
**CMF Design**  
**(Color, Material and Finish)**

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
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