Postgraduate Certificate
Materials for Design

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Postgraduate Certificate
Materials for Design

- 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/materials-design

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01

Introduction

When designing a product, one of the most important choices is the material used. This will determine its usability, appearance and resistance, among other aspects, so a bad decision in this area can lead the project to failure. Therefore, this program offers the professionals the opportunity to know in depth the different materials and their characteristics, so that they can apply these principles to their own designs. All this, based on an online teaching methodology that will allow the designers to combine their work with studies, since it will be completely adapted to their personal circumstances.

This program will allow you to know the specific properties of the different Materials for Design, improving your own projects and immediately increasing your professional prospects"

The choice of material is essential when facing the realization of the design of a product. Therefore, it is necessary for the professional to be up-to-date, knowing the latest developments and developments in this area. Thus, you can select the most suitable components, depending on the project you are carrying out.

This decision will mark both the appearance and the functionality and durability of the product, so it must be addressed with total seriousness and attention to all details. For that reason, this Postgraduate Certificate in Materials for Design is perfect for the professionals who wants to take a step further and can improve their position as a designer specializing in materials.

In this way, throughout the program you will be able to learn the best combinations of materials and the physical principles that govern them, from a 100% online learning system. With this methodology, you will choose the time and place to study, without having to undergo rigid schedules or uncomfortable displacements. And you will have the best multimedia resources throughout the educational itinerary, with which it will be easy to integrate in your daily work the latest developments in this area of design.

This **Postgraduate Certificate in Materials for Design** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- The development of case studies presented by experts in Design and Materials
- 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

The most cutting-edge educational technology will be at your disposal to deepen your choice of Materials for the Design of your products"

Videos, exercises, case studies, readings, classes, etc. The best resources, accessible 24 hours a day, so that you can study when and where you want"

The online methodology of TECH will adapt to your circumstances, without submitting to rigid schedules, allowing you to combine studies with your work.

This Postgraduate Certificate will prepare you to face all the current and future challenges of choosing materials in the field of product design.

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.

The design of this program focuses on Problem-Based Learning, which means the student must try to solve the different real-life situations of that arise throughout the academic program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

TECH has integrated in a single program the latest developments in Materials for Product Design, making it easier for professionals to update in this complex area. Thus, the main objective of this program is to bring you the latest innovations in the properties and applications of different materials in all types of designs. And to achieve this, it offers a flexible teaching methodology and accessible and effective multimedia resources with which learning will be very simple.

This program will allow you to specialize in materials, one of the most important aspects in the design of any product"

General Objectives

- Recognize the sustainability environment and the environmental context
- Know the main applications of different materials for product design
- Choose the right materials for each type of project

You will experience a great professional advance thanks to this Postgraduate Certificate, specially designed to respond to the current demands of the professional market"

Specific Objectives

- Work with the most suitable materials in each case, in the field of product design
- Explain and describe the main families of materials: their manufacture, typologies, properties, etc.
- Identify and select, according to a Briefing, the different ranges of materials
- Choose wisely, from a wide spectrum, when developing a design proposal for mass production
- Decide which models or prototypes are best suited

03

Structure and Content

This Postgraduate Certificate in Materials for Design has been prepared by great specialists in this creative field, who have gathered the most important contents of this area in a specialized module. Thus, throughout this program, the professional will be able to delve into issues such as contraindications of certain materials, mechanical testing, intelligent materials and the future of materials, especially in terms of sustainability.

You will not find a more complete syllabus to know in depth the applications of different materials in the area of product design"

Module 1 Materials for Design

1.1. The Material as Inspiration
- 1.1.1. Search for Materials
- 1.1.2. Classification
- 1.1.3. The Material and its Context

1.2. Materials for Design
- 1.2.1. Common Uses
- 1.2.2. Contraindications
- 1.2.3. Combination of Materials

1.3. Art + Innovation
- 1.3.1. Materials in Art
- 1.3.2. New Materials
- 1.3.3. Composite Materials

1.4. Physical
- 1.4.1. Basic Concepts
- 1.4.2. Material Composition
- 1.4.3. Mechanical Tests

1.5. Technology
- 1.5.1. Intelligent Materials
- 1.5.2. Dynamic Materials
- 1.5.3 The Future in Materials

1.6. Sustainability
- 1.6.1. Procurement
- 1.6.2. Use
- 1.6.3. Final Management

1.7. Biomimicry
- 1.7.1. Reflection
- 1.7.2. Transparency
- 1.7.3. Other techniques

1.8. Innovation
- 1.8.1. Success Stories
- 1.8.2. Materials Research
- 1.8.3. Research Sources

1.9. Hazard Prevention
- 1.9.1. Safety Factor
- 1.9.2. Fire
- 1.9.3. Breakage
- 1.9.4. Other Risks

1.10. Regulations and Legislation
- 1.10.1. Regulations According to Application
- 1.10.2. Regulations by Sector
- 1.10.3. Regulations by Location

The most up-to-date content is now at your disposal to become a great material specialist"

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 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

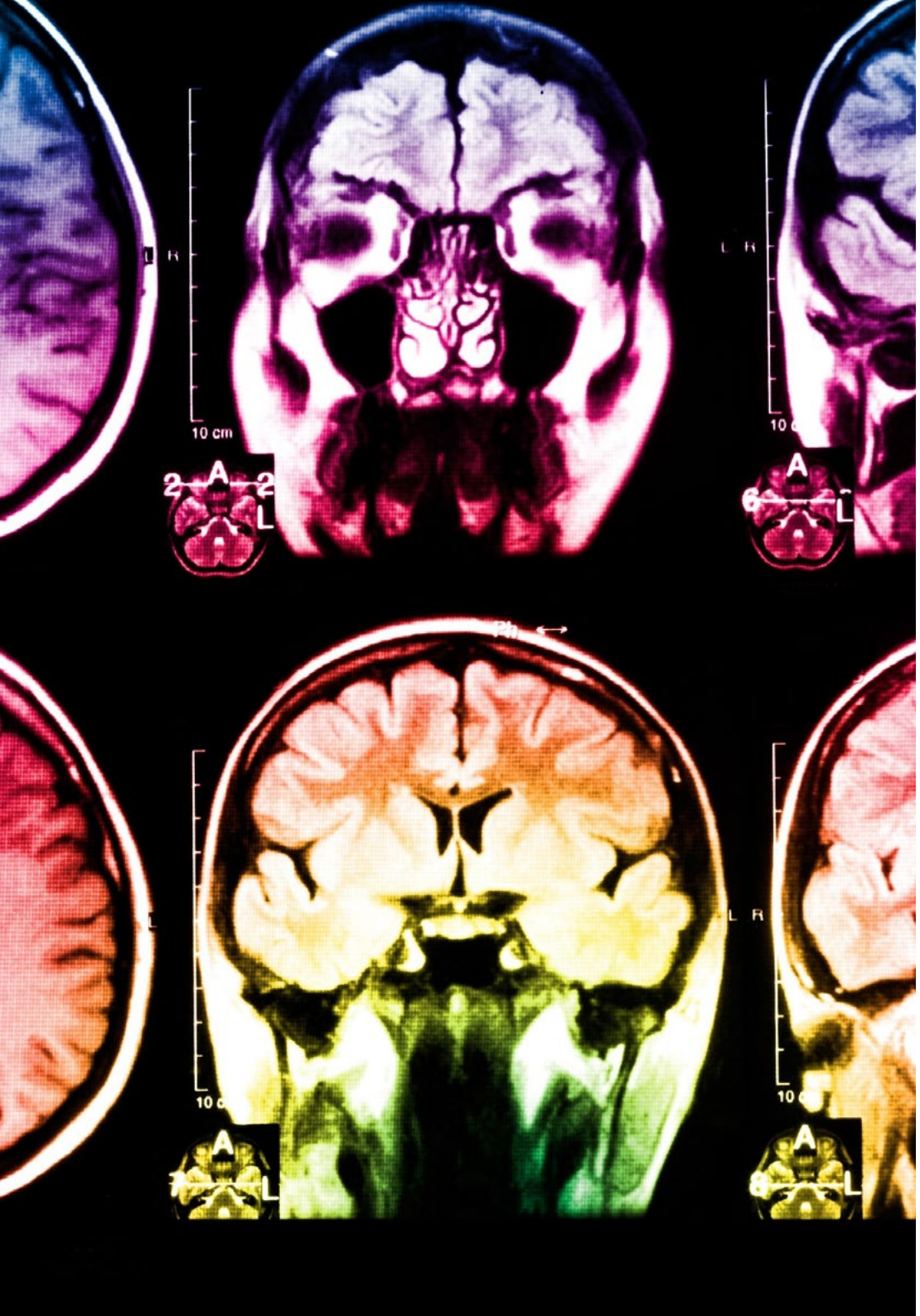
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

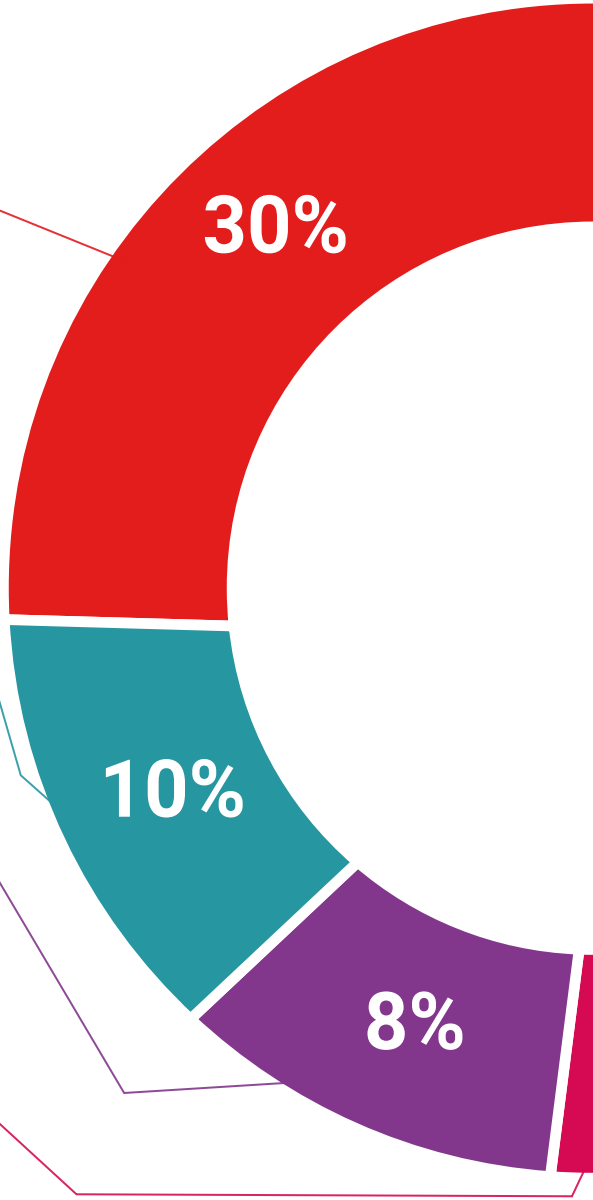
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

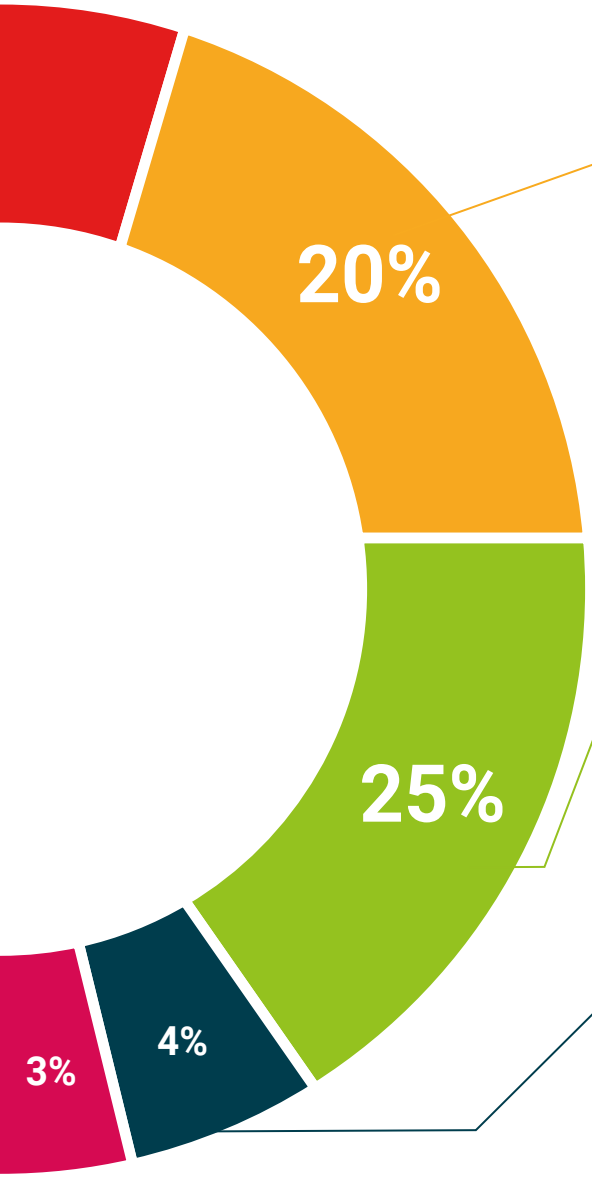
Practising Skills and Abilities

They will carry out activities to develop specific 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.





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 Certificate in Materials for Design guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Materials for Design** 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 Materials for Design**

Official N. of Hours: **150 h.**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Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Materials for Design

This is a qualification awarded by this University, equivalent to 150 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

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. 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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