Postgraduate Certificate

Textile Finishing and Dyeing

tech technological university

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Postgraduate Certificate

Textile Finishing and Dyeing

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

Website: **www.techtitute.com/us/engineering/postgraduate-certificate/textile-finishing-dyeing**

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01

Introduction

The development of the Textile Industry has been affected by the advances of diverse professional, scientific and working areas that pour their needs into multifaceted production and research systems. This is the case of Textile Engineering, where its results converge with the needs of different sectors that handle the results of the manufacture of fabrics for daily and/or professional use. Being necessary the constant improvement of the same, TECH has created this program with the objective of preparing, updating and instructing the engineer with the latest advances in Textile Engineering, with the benefit of a 100% online modality.

Upgrade your skills in finishing and sizing, dyeing and printing preparation processes with this exclusive 100% online program from TECH"

The constant increase of advances and upgrades in various stages of the same approach has turned Textile Engineering into a multifaceted sector with interdisciplinary and multidisciplinary applications that allow a pluralized development. This context takes into account the imperative need that arises in the increase of the production of quality fabrics, in the midst of the responsibility that is also given by the development of this industry, sustaining prior to the development, the ethical urgency of the production of fabrics. Therefore, it is even here where this sector has an important reach.

Similarly, such progress has as a participant the increase in textile needs. For industries such as medicine, fashion, automotive, aerospace and some other areas the development of Textile Engineering covers an important demand, adapting its correct use depending on the requirement, as in the medical sector by focusing on fabrics suitable for laboratories, hygienic treatment of patients, etc.

Considering these frameworks in which the Textile Engineering sector develops, which precedes its advances and projects them accordingly, TECH has created this program to qualify and upgrade the professional in the area. With this academic degree in a 100% online mode, with virtual simulations of practical exercises, without pre-set schedules and with the convenience of taking the classes from your preferred electronic device, combining this with the teaching method, the graduate will have an effective and enjoyable learning process.

This **Postgraduate Certificate in Textile Finishing and Dyeing** contains the most complete and up-to-date program on the market. The most important features include:

- Case studies presented by experts in Textile Finishing and Dyeing
- The graphic, schematic, and practical contents with which they are created, provide 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

Become a master of Textile Finishing and Dyeing through this complete program and be one of the best professionals in the sector"

With the advance of technology and the industrialization of many procedures, it is necessary to have an advanced education program such as this Postgraduate Certificate in Textile Finishing and Dyeing"

Improve your knowledge in Textile Engineering and give your career a direction towards professional excellence.

Manage outstanding textile manufacturing processes with this Postgraduate Certificate specializing in the Textile Finishing and Dyeing sector.

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

Its 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 an immersion education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02

Objectives

The Postgraduate Certificate in Textile Finishing and Dyeing is designed to prepare professionals in Textile Engineering, with the objective of providing graduates with in-depth knowledge of products and processes for finishing. This way, they will be able to perform with excellence in their professional work. In addition, the teaching is delivered in an online modality, which provides autonomy in which it is the engineers themselves who distribute their workload.

If among your goals is to become an elite professional in the industry, this Postgraduate Certificate is for you"

General Objectives

- Classify the different types of fibers according to their nature
- Determine the main physical characteristics of textiles
- Acquire technical skills to recognize the quality of textiles
- Establish scientific and technical criteria for the selection of suitable materials for the development of textile articles in the fashion sector
- Identify and apply the sources of inspiration and the most innovative trends in the textile area
- Generate a transversal vision of textile structures with a multisectorial vision of its applications

You will be able to achieve all your goals thanks to this complete program in Textile Finishing and Dyeing by updating your knowledge in the area"

Specific Objectives

- Develop specialized knowledge of the application in preparation, bleaching and dyeing operations and in the application in sizing and finishing operations
- Analyze and distinguish the different processes that give specific characteristics to textiles
- Apply each specific process according to the nature of the textile itself and the characteristics and properties we want to give to textiles
- Professionalize in order to provide reproducibility criteria for the application of methods of sizing and finishing
- Promote a visual, tactile, organoleptic and practical evaluation of the effects of sizing and finishing on textiles
- Detect the influence of color on textiles and its importance at corporate and business level

03

Course Management

TECH offers a high quality education provided by excellent teaching professionals, who prepare students with meticulous thoroughness and exhaustive detail in each of the proposed topics. In addition, the student's autonomy is encouraged to actively participate in the learning process of the syllabus. The instructions are given 100% online, with virtual simulations of practical exercises, which guarantees a high quality preparation in Textile Finishing and Dyeing for the graduate who chooses this Postgraduate Certificate.

With the guidance of the best professionals in the Textile Engineering sector, you will be able to improve your knowledge and give it a direction towards professional excellence"

Management

Dr. González López, Laura

- Expert in Textile and Paper Engineering
- Textile Innovation Production Manager at Waste Prevention SL
- Pattern and garment maker oriented to the automotive sector
- Researcher in the Tectex group
- Lecturer in undergraduate and postgraduate university studies
- D. in Textile and Paper Engineering from the Polytechnic University of Catalonia
- Graduate in Political Science and Administration from the Autonomous University of Barcelona
- PROFESSIONAL MASTER'S DEGREE in Textile and Paper Engineering

Professors

Ms. Ruiz Caballero, Ainhoa

- Specialist in the sports textile industry
- Commercial team leader of technical textile products for extreme sports at McTrek Retail GmbH Aachen
- Technician specialized in textile products Hightech for high mountain at McTrek Outdoor Sports GmbH Aachen
- Degree in Political Science and Law from the Polytechnic University of Catalonia
- Master's Degree in European Union by the European Institute of Bilbao

04

Structure and Content

The complete degree that TECH has designed offers an innovative didactic approach based on the Relearningmethod, which implies a constant reiteration of the most important concepts throughout the syllabus in order to facilitate the natural and comprehensive integration of knowledge. This way, the graduates will acquire specific skills and competences in a dynamic and efficient way, without having to invest time in a tedious memorization task. In addition, the program is taught completely online and offers the most complete theoretical and practical content on the market, allowing students to delve deeper into the properties of fabrics.

With this rigorously prepared curriculum you will be able to specialize in Textile Finishing and Dyeing and become an even better Textile Engineer"

Module 1. Preparation processes in finishing and sizing, dyeing and printing

1.1. Dyeing, finishing and printing preparation processes
- 1.1.1. Classification of textile finishing. Differentiation according to type
- 1.1.2. Ecofinishing operations within the production line of textile goods
- 1.1.3. Processes for the preparation of fabrics intended for industrial garment manufacturing and associated sub-processes

1.2. Products and processes used in sizing. Classification
- 1.2.1. Washing and optical brightening agents
- 1.2.2. Additives, teas and softeners according to their nature
- 1.2.3. The gluing process and its function

1.3. Products and processes for crease-resistant, shrink-resistant and stain-resistant coatings
- 1.3.1. Processes on cotton, viscose and wool fabrics
- 1.3.2. Water- and oil-repellent (stain-resistant) finishes
- 1.3.3. Coating *Wash* and *Wear*

1.4. Waterproof, water-repellent and flame-retardant coatings
- 1.4.1. Waterproof coatings on textile substrates. Applications
- 1.4.2. Water repellent coatings on textile substrates. Applications
- 1.4.3. Waterproof coatings on textile substrates. Applications

1.5. Antiseptic and anti-static preparations
- 1.5.1. Fungicide and anti-mildew preservatives. Products
- 1.5.2. Insecticide preservatives. Products
- 1.5.3. Anti-static agents. Classification

1.6. Matting, fulling and charring operations
- 1.6.1. Process and products for matting
- 1.6.2. Fulling process and products
- 1.6.3. Charring process and products

1.7. Complementary operations of finishing
- 1.7.1. Drying operations
- 1.7.2. Transitory and permanent tissue widening operations
- 1.7.3. Condensation operations

1.8. Chemical and mechanical finishing
- 1.8.1. Modifying, additive, waterproof, water-repellent, flame-retardant, fire-retardant, antiseptic and antiseptic finishes
- 1.8.2. Fabric finishing
  - 1.8.2.1. Calendering, palmering, pressing, steaming, decatizing, harnessing, shearing, shrink finishing, pleating, folding and *Pilling* elimination
- 1.8.3. Differences between sizing and finishing of protein fibers, cellulosic fibers and synthetic fibers

1.9. Processes and operations in dyeing
- 1.9.1. Preparation of substrates for dyeing
- 1.9.2. Dyeing products and processes depending on the fiber being treated
- 1.9.3. Environmental impact of dyeing processes and improvement innovations

1.10. Processes and operations in textile printing
- 1.10.1. Types of textile printing
- 1.10.2. Adequacy of textile printing according to textile substrate
- 1.10.3. Printing innovations over the last decades

An excellent program in Textile Engineering designed for the best professionals, like you"

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.

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 that you are presented with 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

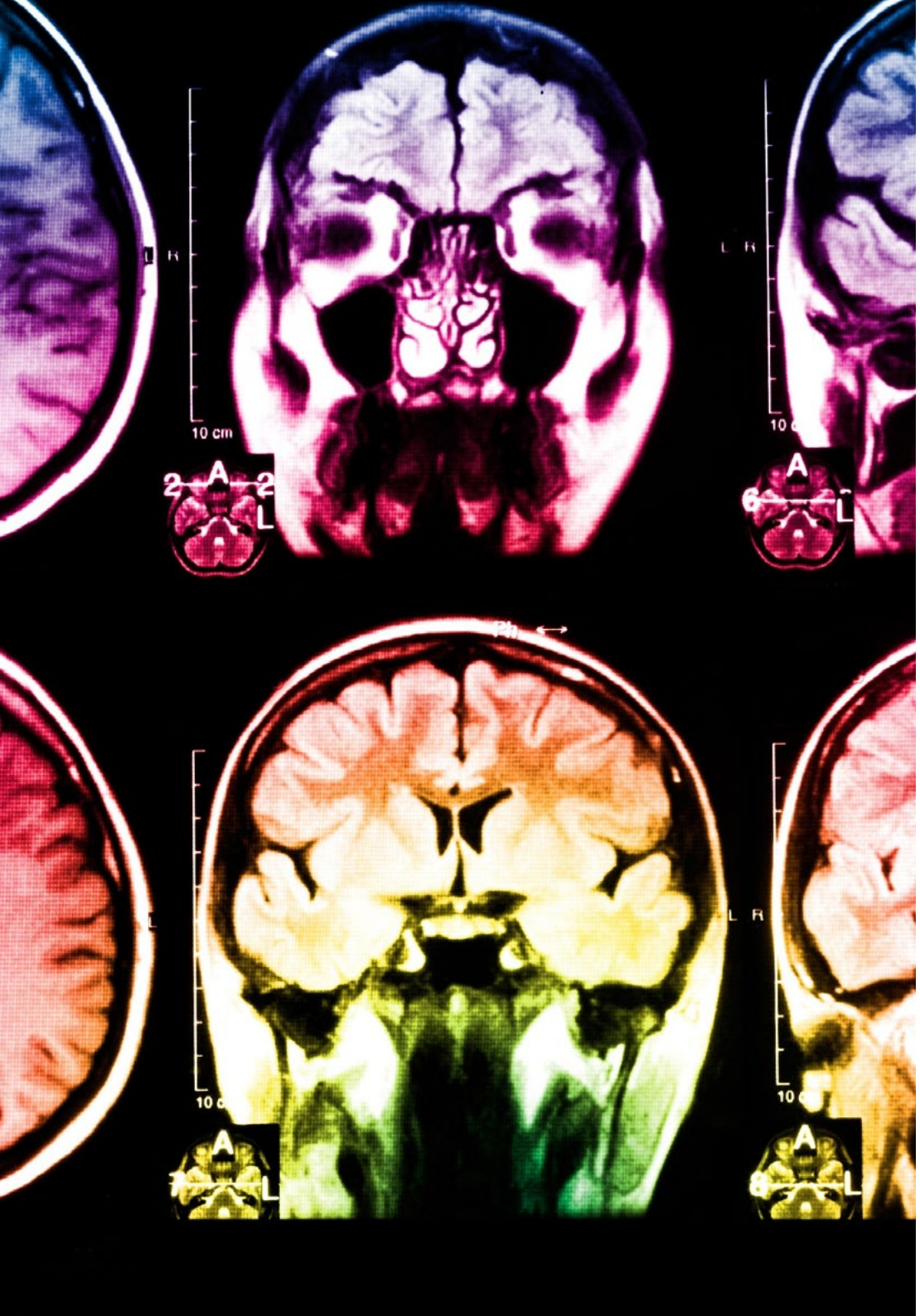
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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. 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.

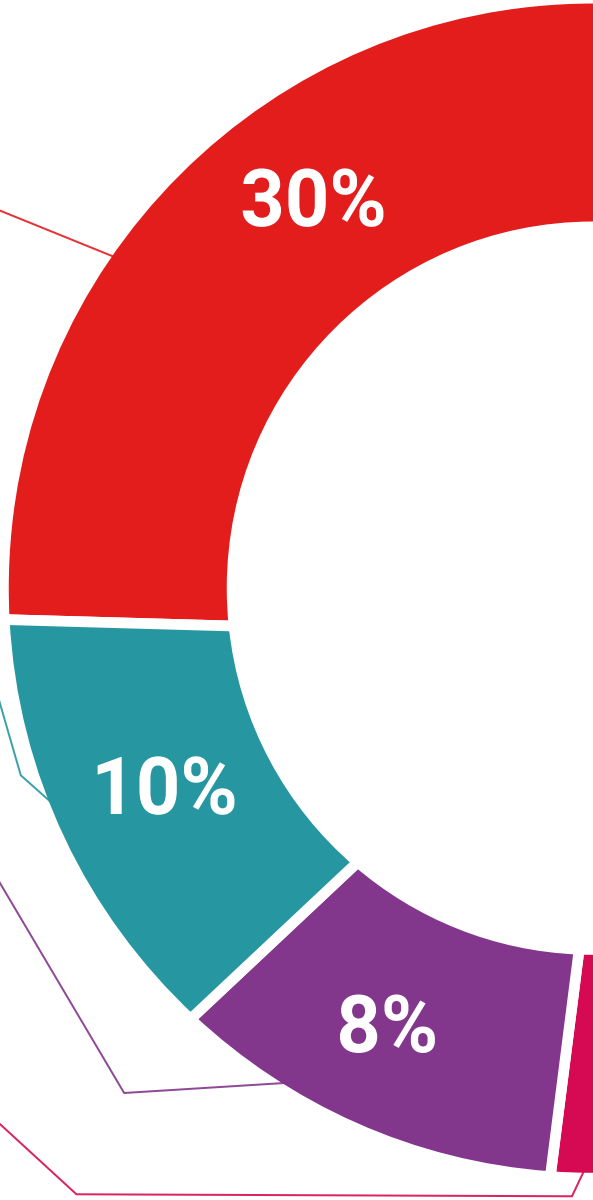
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

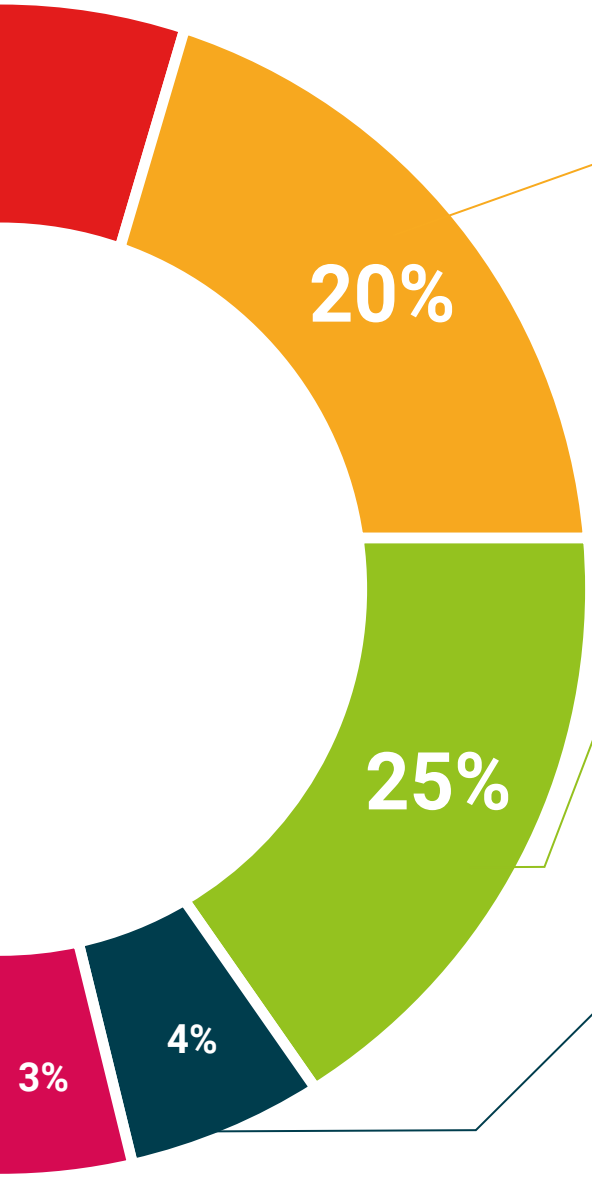
Practising Skills and Abilities

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.





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 Certificate in Textile Finishing and Dyeing 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 Textile Finishing and Dyeing** 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 Textile Finishing and Dyeing**

Official Nº of hours: **150 h.**


tech technological university

Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Textile Finishing and Dyeing

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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