

Postgraduate Certificate Fabric Quality Control





Postgraduate Certificate Fabric Quality Control

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

Website: www.techtitute.com/us/engineering/postgraduate-certificate/fabric-quality-control

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

Products must meet certain standards to satisfy customer expectations. Therefore, it is essential to have professionals skilled in ensuring that products meet quality standards. In addition, fabric quality control helps reduce production costs by identifying and solving quality problems before they affect the final product. According to a study conducted by the University of Valencia, the implementation of quality control in the textile industry can reduce production costs by 15%. To meet these needs, TECH Technological University has created this complete and precise program in a 100% online modality, with no fixed schedules, for the benefit of the professional who chooses this degree.



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You will deepen your knowledge of the success of industrial garment operations thanks to a unique and complete online degree”

Industrial manufacturing of fabrics is an efficient form of mass production that meets the needs of the textile industry. However, due to the speed of production, it is essential to carry out quality control to ensure that the fabrics meet the required standards. This implies the preparation of professionals specialized in physical and chemical processes of creation, as well as in tests to verify the quality of the final product.

As a result, the quality control of fabrics requires highly skilled professionals in physical and chemical production processes, as well as in quality testing and physical characteristics determination in physical and chemical production processes, as well as in quality control tests and determination of physical characteristics. Therefore, it is crucial for the engineer to have a thorough and rigorous knowledge of seam strength, abrasion resistance and crease resistance to ensure quality standards.

For this reason, in view of the academic requirements of these sectors, TECH has developed this program, making possible an exhaustive program to bring this sector fully up-to-date with regard to Textile Engineering. This is an academic degree taught in 100% online mode, which has the facilities of virtual simulations of practical exercises, without fixed schedules, and allowing the ease of taking classes from any place and device of your choice.

This **Postgraduate Certificate in Fabric Quality Control** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Fabric Quality Control
- ◆ 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 the self-assessment process can be carried out 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 an expert in the Quality Control sector of textile manufacturing and prepare yourself for an excellent job performance”

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Textile manufacturing, yarn manufacturing and fiber processing are important notions in Textile Engineering, become proficient in these areas with this Postgraduate Certificate”

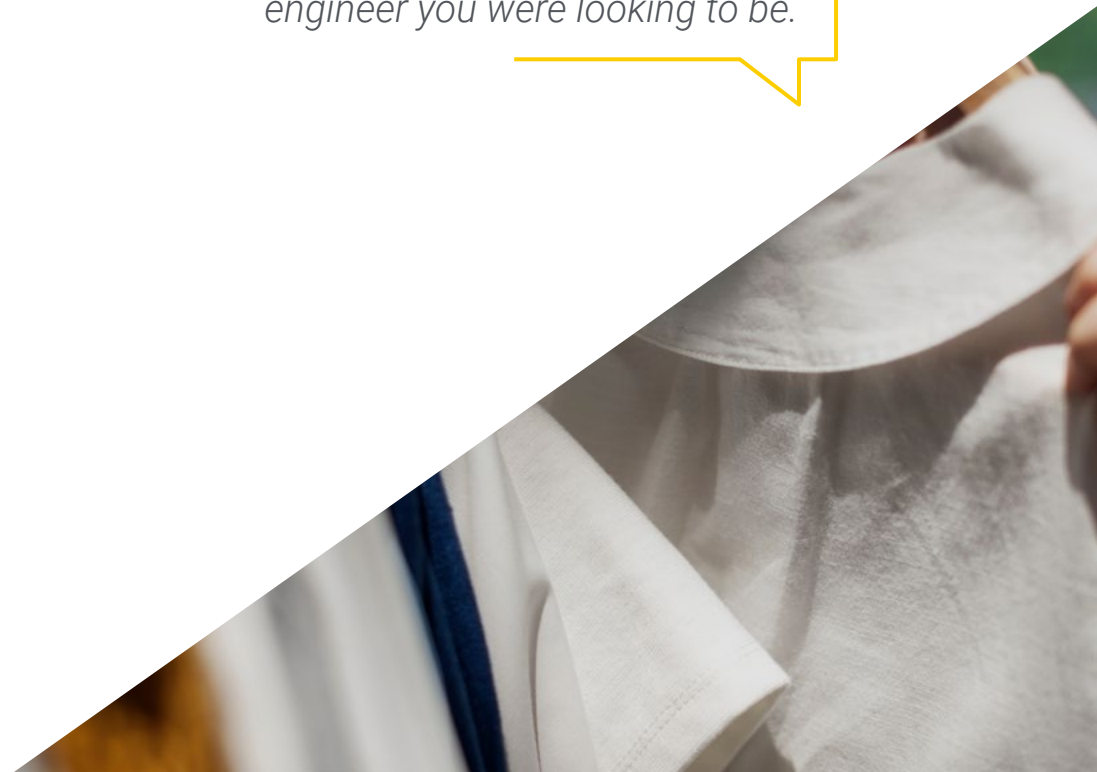
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

Improve your knowledge in the Textile Engineering sector, give your professional life a direction to excellence for the best work performance.

Get to know all the principles of Fabric Quality Control and be the specialized engineer you were looking to be.



02

Objectives

This degree has been designed to provide the student with a deep and complete knowledge in the Fabric Quality Control. The purpose of this program is to enable the engineers to improve their skills in the parameters of spinning and weaving, as well as to deepen their knowledge of the global regulations applicable to the determination of seams. Develop skills and enhance the abilities that the graduates have acquired in their professional career. This way, you will be able to implement the most advanced tools to your professional practice in only 6 weeks and completely online.





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You will be able to achieve your professional goals thanks to this Postgraduate Certificate in Fabric Quality Control”



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



Achieve your goals, improve your skills in Fabric Quality Control and become an excellent engineer specialized in this field"





Specific Objectives

- ◆ Develop the scientific and technical foundations for interpreting textile quality results
- ◆ Examine the principal physical tests used for fabric characterization
- ◆ Identify and work with the operation of the main test measurement equipment
- ◆ Structuring of a self evaluation plan for the quality of fabrics
- ◆ Analyze and synthesize the regulations applicable to the evaluation of fabric quality
- ◆ Determine the quality and sustainability parameters of fabrics according to market requirements.
- ◆ Substantiate and describe in a technical report the transversal knowledge

03

Course Management

In context with the quality education offered in this program's syllabus, the direction of this Postgraduate Certificate will be in charge of highly qualified teachers in the area of Textile Engineering, specializing their focus on the Fabric Quality Control. Generating a pleasant teaching and learning environment, both for the teacher and for the student, so that the direction serves as a guide to fulfill the step by step of the study that deepens the basic knowledge of the professional. Thus, through the instruction given by the teachers, the graduate will obtain the best up-to-date information on the academic market.





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Walk the path of this program with the guidance of the best qualified professionals who will give you the most of their professional experience”

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

TECH offers through this complete degree a didactic journey developed with the most innovative method *Relearning* consisting of the reiteration of the most important concepts throughout the entire syllabus. This way, the integration of knowledge in a natural and interactive way is encouraged. Thus, the graduate will obtain specific competencies and skills without having to invest hours in the tedious task of memorizing, but will learn in a dynamic and efficient way. Under a 100% online platform and the most complete theoretical and practical contents of the market, the student will deepen in the categories of the properties of fabrics.





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With this rigorous curriculum you will be able to acquire specialized skills in the field of Textile Engineering and Fabric Quality Control”

Module 1. Characterization and evaluation of fabric quality

- 1.1. Structure and Properties of Fabrics
 - 1.1.1. Fabrics as anisotropic materials
 - 1.1.2. Continuous models
 - 1.1.2.1. Fabrics as a continuous material without regard to microstructure
 - 1.1.3. Discontinued models
 - 1.1.3.1. Fabric analysis based on the information of its components
- 1.2. Categories of fabric properties
 - 1.2.1. Textile substrate structural parameters
 - 1.2.2. Functional parameters on the properties of fabric utilization
 - 1.2.3. Manufacturing parameters suitable For industrial operations
- 1.3. Behavior of textiles against fluids
 - 1.3.1. Specific properties with respect to air permeability
 - 1.3.2. Resistance to water infiltration
 - 1.3.2.1. Tests under hydrostatic pressure and water resistance
 - 1.3.3. Water steam permeability and moisture resistance of fabrics
- 1.4. Performance of textiles in use
 - 1.4.1. *Pilling effect* on the surface of fabrics and methods of evaluation
 - 1.4.2. Spinning parameters and fabric parameters. Effects on the wear behavior of fabrics
 - 1.4.3. Abrasion and wrinkle resistance. Methods of Analysis
 - 1.4.4. Thermal conductivity of fabrics and evaluation tests
- 1.5. Fabric manufacturability. The success of industrial manufacturing operations
 - 1.5.1. Textile manufacturability evaluation equipment and tests
 - 1.5.2. Behavior of textiles when cut, sewn and ironed
 - 1.5.3. Seam strength. Tensile and tearing methods
- 1.6. Other measures of seam behavior in fabrics
 - 1.6.1. Global standards applicable in the determination of seams
 - 1.6.2. Burst strength and measurement tests
 - 1.6.3. Fabric compression forces and their influence on the human body
- 1.7. Fabric Hand. Interpretation by changing socio-cultural patterns





- 1.7.1. Subjective measurement of textiles
- 1.7.2. Evaluation according to geographic and interpretation variability
- 1.7.3. Kawabata method. Objective evaluation of a traditionally subjective technique
- 1.8. Mechanical properties of fabrics
 - 1.8.1. Tensile strength, measuring equipment and parameters
 - 1.8.2. Flexural strength and its measurements
 - 1.8.3. Surface analysis. Coefficient of friction and roughness
 - 1.8.4. Thickness and grammage calculations
- 1.9. Static sag of fabrics
 - 1.9.1. Principles and objectives of the test
 - 1.9.2. Types of drapometers for measurement
 - 1.9.3. Analytical study of the fall. Indicators
- 1.10. Other textile analysis methods
 - 1.10.1. Compression module and voluminosity of fabrics
 - 1.10.2. Thermal module. Fabric-human body heat transfer
 - 1.10.3. Deformation of fabrics. Flexural module



Build a path that will lead you to professional success with this program designed for 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.





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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.

“

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 Fabric Quality Control 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 Fabric Quality Control** 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 Fabric Quality Control**

Official N° of hours: **150 h.**



*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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