Postgraduate Certificate
Technology Project Quality Management

tech universidad tecnológica

tech universidad tecnológica

Postgraduate Certificate
Technology Project Quality Management

Course Modality: **Online**
Duration: **6 weeks**
Certificate: **TECH Technological University**
Official Nº of hours: **150 h.**
Website: www.techtitute.com/pk/informatica/curso-universitario/gestion-calidad-proyecto-tecnologico

Index

01

Introduction

When the term "quality" is mentioned in the management of a Technology Project, it refers to the fulfillment of the requirements that ensure that the objectives proposed at the beginning of the planning are achieved. With this program, computer scientists will learn a set of statistical techniques, standards and the approaches of some quality theorists, which will be fundamental when organizing a project. All this, with the main purpose of favoring students' personal and professional growth, thereby helping them to achieve success in their work within a company.

According to Philip Crosby, the quality of a project is achieved by anticipating and avoiding defects that can ruin the team's work"

The Postgraduate Certificate in Technology Project Quality Management presents some of the guidelines that allow for the efficient development of a planning process. The program will begin by discussing the importance of project quality assurance, presenting the difference between quality and grade, as well as a number of metrics and accuracy techniques that will help in this estimation.

After that, it will be possible to appreciate different theoretical approaches that have been proposed by renowned experts in the field, such as Philip Crosby, who developed an approach focused on the "Cost of Low Quality", stating that the costs of excellence are high when there is no investment in an excellent management system. The ideas of Kaoru Ishikawa, an important figure in the quality movement in Japan, will also be presented.

In addition, students will learn about the ISO21500 standard, a set of guidelines that help companies manage projects based on process, time and risk. There will also be space to discuss new trends and practices that have emerged in the field and that help to continuously improve the work of many professionals.

With the knowledge provided in the program, the student will be able to make accurate, fast and effective decisions, which will be supported by a series of concrete data on the reality of the job.

This **Postgraduate Certificate in Technology Project Quality Management** 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 Technology Project Management
- The graphic, schematic and practical contents of the system provide business and practical information on those 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

Learn how to perform a quality audit, defining the objectives and benefits for the project"

In the words of Kaoru Ishikawa: the success of a project requires the collaboration of all team members"

With this program, you will be prepared to face difficult situations such as non-compliance with the quality of a project.

Put the program's theoretical knowledge into practice by performing a process analysis and a quality audit.

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.

02

Objectives

Project Quality Management can be achieved by performing a set of statistical techniques or by using computerized methods, which will be exposed in this course. In this way, it will be possible to analyze the ISO 21500 standard, emerging trends in project quality management, how to carry out cost-benefit planning, among others. Therefore, after the completion of this program, the student will know all the aspects that influence a Technology Project to meet the highest quality standards.

Actions that guarantee the quality of a technology project stem from the appropriate organization and management of the team's tasks"

General Objectives

- Develop skills and abilities required to make decisions in all types of projects, especially in technological projects and those developed in multidisciplinary contexts and environments
- Acquire the ability to analyze and diagnose business and management problems
- Master advanced business management tools
- Provide a global and strategic vision of all operational departments of the company
- Take responsibility and think in a transversal and integrative way to analyze and solve situations in uncertain environments
- Develop acts of incorporation of Technology Projects
- Carry out a comprehensive control of all projects
- Knowing how to estimate time in each process of project design and development
- Evaluate the processes and estimate the cost of developing a technology project
- Give importance to the quality of the projects
- Understanding the cost of failing to meet project quality
- Perform quality controls at each stage of the project
- Gain skills and techniques to manage human resources and be able to resolve conflicts in the team
- Knowing the emerging trends in the market
- Develop communication skills that favor teamwork
- Understand and manage the risks of technology projects

Specific Objectives

- Sizing the importance of project quality management, differentiating between quality and grade
- Know the different theories applied to quality, such as the one proposed by Edwards Deming
- Analyze the ISO 21500 standard, studying its history, objectives and characteristics
- Learn how to perform a correct quality control, using statistical sampling, questionnaire, impactions, performance reviews, among others

A Technology Project is efficient when everyone works to comply with quality standards and protocols"

03

Course Management

A group of experts who have gained experience in the sector by managing various projects have participated in the design of this TECH Postgraduate Certificate. Thanks to this, students will be able to learn a series of skills, required to estimate the quality of the tasks of a Technology Project. This will represent a great improvement opportunity for those who wish to test their skills and capabilities in a technology team.

With the help of this group of experts, you will be ready to measure and improve the tasks of a project"

Management

Dr. Romero Mariño, Brunil Dalila

- Database Administrator, OCREM Association, Granada, Spain
- Software Projects and Technology Architecture Consultant for different companies, Venezuela
- University Professor of Computer Science. Department of Processes and Systems, Simón Bolívar University (USB), Venezuela
- Researcher in Software Engineering and related areas, Department of Processes and Systems, Simón Bolívar University (USB), Venezuela
- Systems Engineer from Bicentenaria de Aragua University (UBA), Venezuela
- Doctorate in Information and Communication Technologies from the University of Granada (UGR), Spain
- Master's Degree in Systems Engineering, Simón Bolívar University (USB), Venezuela
- Expert in Communications and Data Communication Networks, Central University of Venezuela (UCV)

04

Structure and Content

The program is designed to help students understand the importance of complying with the quality standards of a project. This will be achieved through metrics, in order to determine when a goal has been achieved. Likewise, a series of theories that help to measure the quality of a project, such as those outlined by Edwards Deming or Kaoru Ishikawa, will be explained. This way, different practical cases will be provided to exemplify the knowledge imparted and to guarantee the understanding of the contents.

Learn about the approaches of great experts such as Kaoru Ishikawa and Joseph Juran"

Module 1. Technology Project Quality Management

1.1. Importance of Quality Management in Projects
- 1.1.1. Key Concepts
- 1.1.2. Difference between Quality and Grade
- 1.1.3. Precision
- 1.1.4. Accuracy
- 1.1.5. Metrics

1.2. Quality Theorists
- 1.2.1. Edwards Deming
  - 1.2.1.1. Shewart Deming Cycle (Plan-Do-Check-Act)
- 1.2.2. Continuing Improvement
- 1.2.3. Joseph Juran. Pareto Principle
  - 1.2.3.1. Fitness for Purpose Theory
- 1.2.4. "Total Quality Management" Theory
- 1.2.5. Kaoru Ishikawa (Herringbone)
- 1.2.6. Philip Crosby (Cost of Low Quality)

1.3. Regulations: ISO 21500
- 1.3.1. Introduction
- 1.3.2. Background and History
- 1.3.3. Objectives and characteristics
- 1.3.4. Process group-Subject group
- 1.3.5. ISO 21500 vs. PMBOK
- 1.3.6. Future of the Standard

1.4. Emerging Trends and Practices in Quality Management
- 1.4.1. Policy Compliance and Auditing
- 1.4.2. Standards and Compliance
- 1.4.3. Continuing Improvement
- 1.4.4. Stakeholder Involvement
- 1.4.5. Recurring Retrospectives
- 1.4.6. Subsequent Retrospectives

1.5. Quality Management Planning
- 1.5.1. Cost-benefit Analysis
- 1.5.2. Multi-criteria Decision Analysis
- 1.5.3. Test Planning and Inspection
- 1.5.4. Flow Diagrams
- 1.5.5. Logical Data Model
- 1.5.6. Matrix Diagram
- 1.5.7. Interrelationship Digraphs

1.6. Quality Compliance and Noncompliance Costs
- 1.6.1. Compliance Costs
- 1.6.2. Non-Compliance or Non-Conformance Costs
- 1.6.3. Prevention Costs
- 1.6.4. Valuation Costs
- 1.6.5. Internal Failures
- 1.6.6. External Failures
- 1.6.7. Marginal Cost of Quality
- 1.6.8. Optimum Quality

1.7. Quality Management
- 1.7.1. Checklists
- 1.7.2. Analysis of Alternatives
- 1.7.3. Document Analysis
- 1.7.4. Process Analysis
- 1.7.5. Root Cause Analysis
- 1.7.6. Cause-and-effect Diagrams
- 1.7.7. Histograms
- 1.7.8. Scatter Plots
- 1.7.9. Design for X
- 1.7.10. Quality Improvement Methods

1.8. Quality Audits
- 1.8.1. What is an Internal Quality Audit?
- 1.8.2. Different Types of Audits
- 1.8.3. Objectives of an Internal Audit
- 1.8.4. Benefits of Internal Audits
- 1.8.5. Actors Involved in Internal Auditing
- 1.8.6. Internal Audit Procedure

1.9. Quality Control
- 1.9.1. Verification Sheets
- 1.9.2. Statistical Sampling
- 1.9.3. Questionnaires and Surveys
- 1.9.4. Performance Reviews
- 1.9.5. Inspection
- 1.9.6. Product Testing/Evaluation
- 1.9.7. Retrospectives and Lessons Learned

The quality of a project depends on the development and execution of various statistical techniques and methods. Learn about them in this Postgraduate Certificate"

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 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

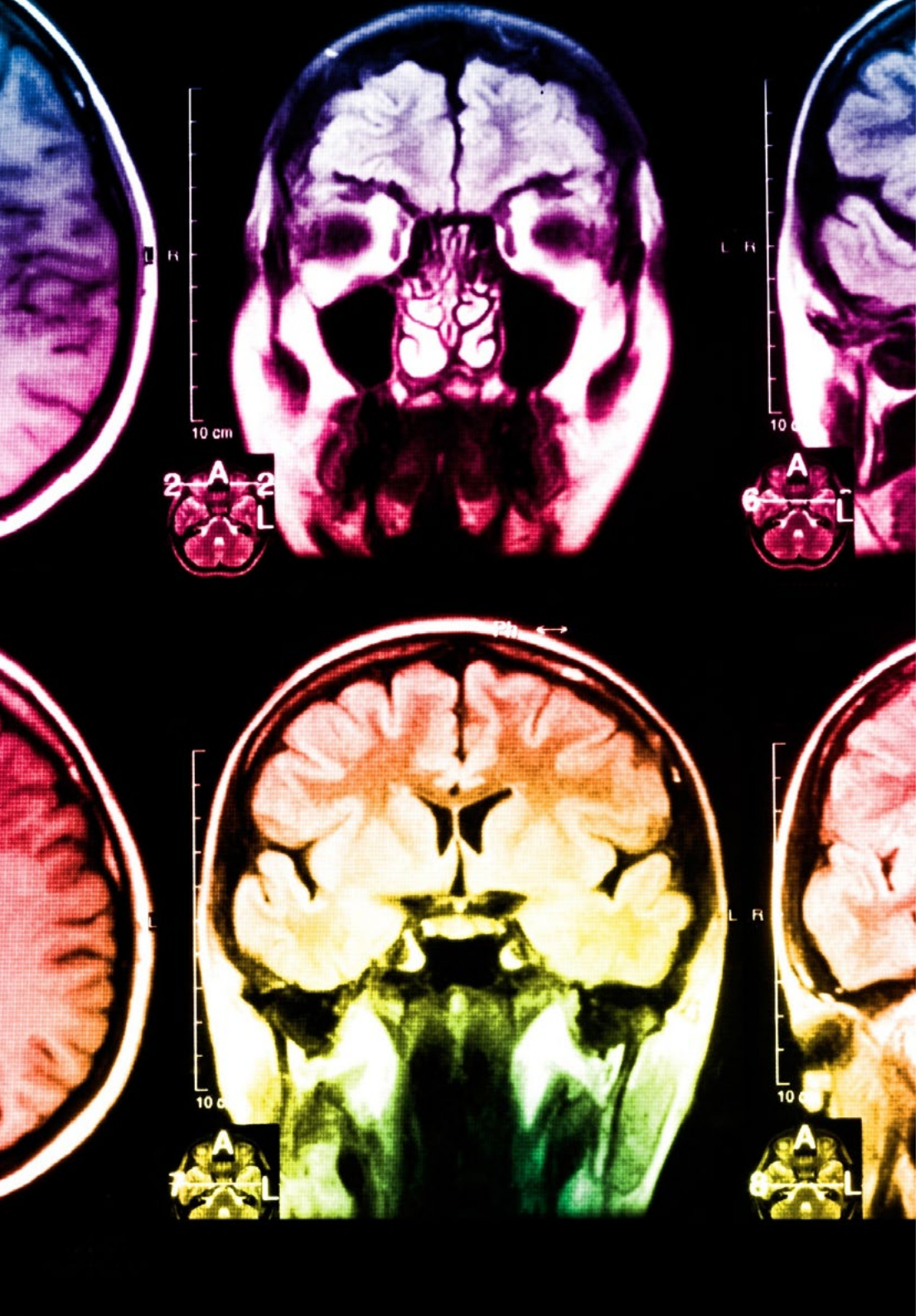
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

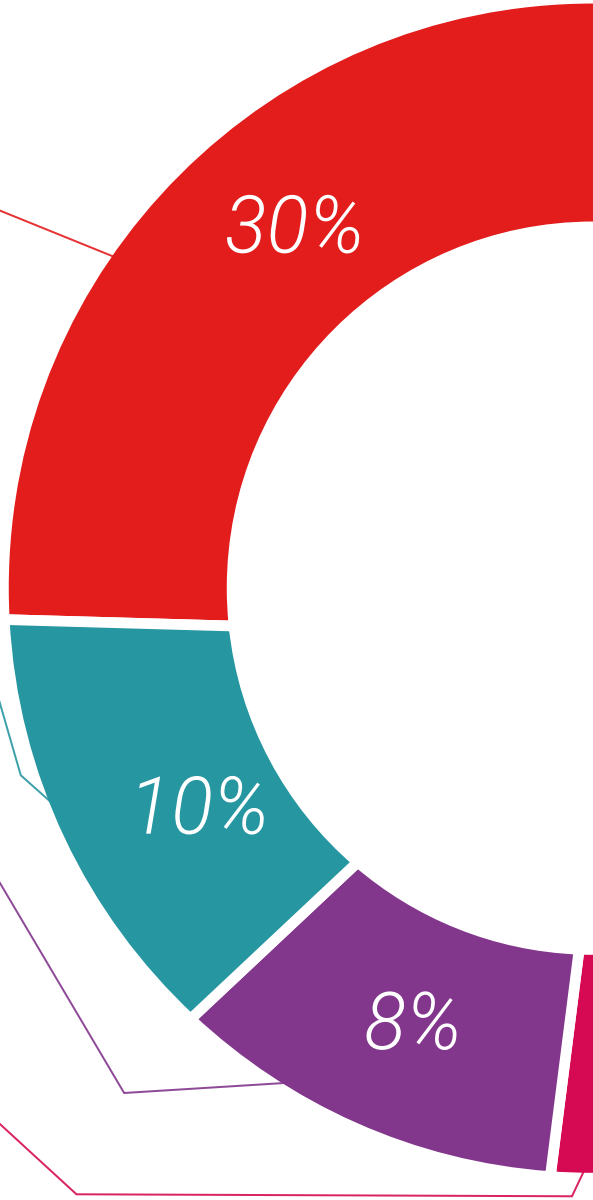
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

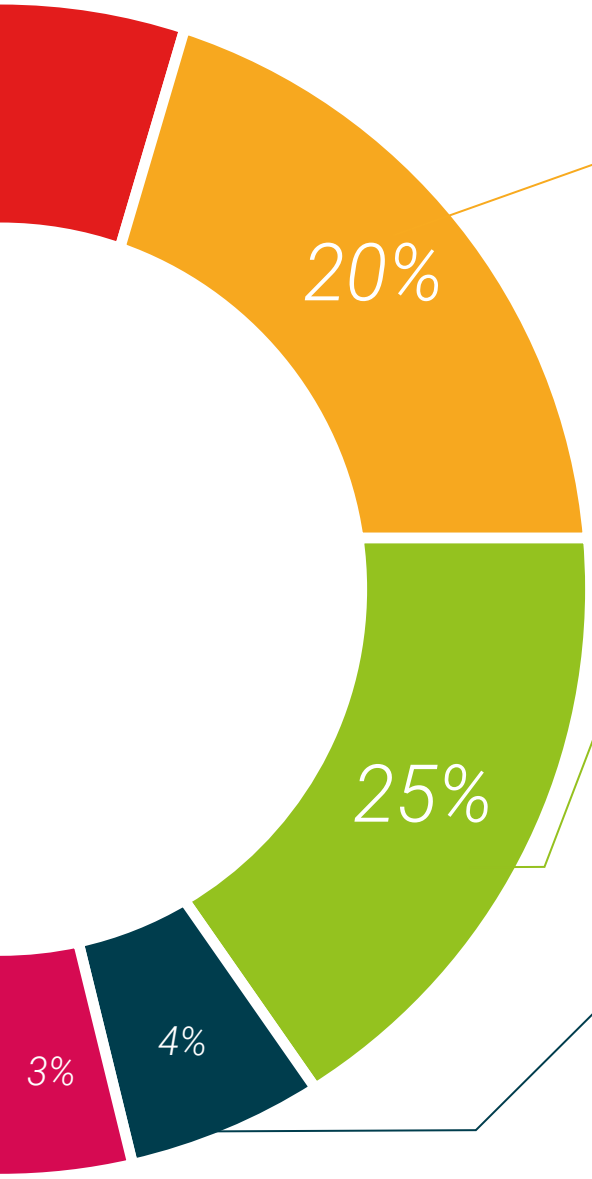
Practising Skills and Abilities

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.





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 Technology Project Schedule Management 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 Technology Project Quality Management** 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 Technology Project Quality Management**

Official Nº of hours: **150 h.**


tech technological university

Awards the following

CERTIFICATE

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Technology Project Quality Management

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 certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

tech universidad tecnológica

Postgraduate Certificate
Technology Project Quality Management

Course Modality: **Online**
Duration: **6 weeks**
Certificate: **TECH Technological University**
Official Nº of hours: **150 h.**

Postgraduate Certificate
Technology Project Quality Management

tech universidad tecnológica