

Postgraduate Diploma

Quality, Risk and Procurement
Management of a Technology
Project





Postgraduate Diploma Quality, Risk and Procurement Management of a Technology Project

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

Website: www.techtute.com/us/information-technology/postgraduate-diploma/postgraduate-diploma-quality-risk-procurement-management-technology-project

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Certificate

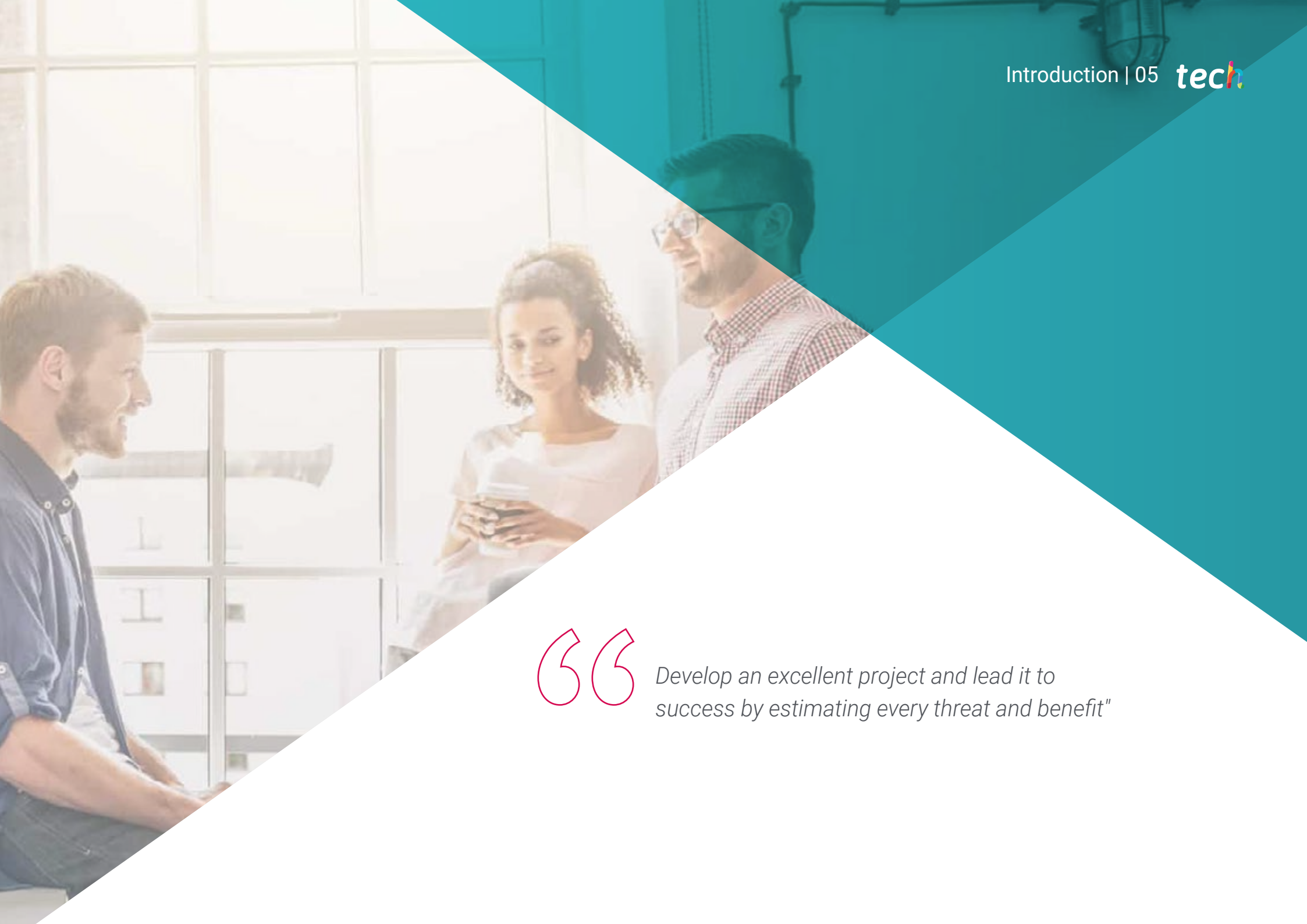
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01

Introduction

Planning a technology project requires a series of steps to comply with quality standards and protocols, but also to ensure that threats related to the work will be addressed and contained in a timely manner. Therefore, by participating in this program, students will acquire the necessary skills to manage these types of activities efficiently by learning the tools and techniques that will help them to be more productive. It will also support the development of a strategy to help identify the risks of a project, which will allow them to be more competitive. All of this will help students complete their profile to advance their careers within any organization.





“

Develop an excellent project and lead it to success by estimating every threat and benefit”

Although, at the beginning of a project, it may seem that nothing can happen, the truth is that there are many factors that can affect it. Anticipating and dealing with unexpected situations is the team leader's responsibility, who must develop a plan of action to deal with any eventuality. With this Postgraduate Diploma, students will find the ideal opportunity to learn how to detect these threats and, in addition, to carry out the quality protocols that guarantee the success of the work.

Therefore, we will start by defining the organizational structure of the team and the strategy to carry out the project. Likewise, a brief overview will be given of standards and best practices such as PRINCE2, PMP and ISO 21500:2012, the latter being a statute that guides the concepts and processes related to the direction and management of projects.

During the program, the student will also learn to define a threat and identify opportunities, differentiating between individual and general risk. To do so, they will learn how to perform a qualitative and quantitative analysis, establishing a sensitivity analysis and the calculation of contingency reserves. This will enable the student to learn how to plan a response and monitor it appropriately.

With the knowledge provided in this Postgraduate Diploma, 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 Diploma in Quality, Risk and Procurement Management of a Technology Project** contains the most complete and up-to-date program on the market. Its most notable features are:

- ◆ 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



Apply the knowledge learned in this Postgraduate Diploma and start to grow in your company"

“

This program will prepare you to face any challenge and threat, which will help you become a leader of the future”

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.

Learn how to search, select and evaluate offers from suppliers that best suit your project needs.

At TECH Technological University, you will be provided with the best tools and a unique methodology to learn how to be the best in your profession.



02 Objectives

The program is designed to ensure that students and professionals in charge of a technology project manage quality work, taking into consideration all threats that may arise and that may jeopardize the stability of the work. Therefore, they will learn how to apply ISO 21500 standards, master certain tools and tactics, as well as how to negotiate with suppliers. As a result, students will enhance their managerial skills, raising their professional profile to successfully advance in their careers.



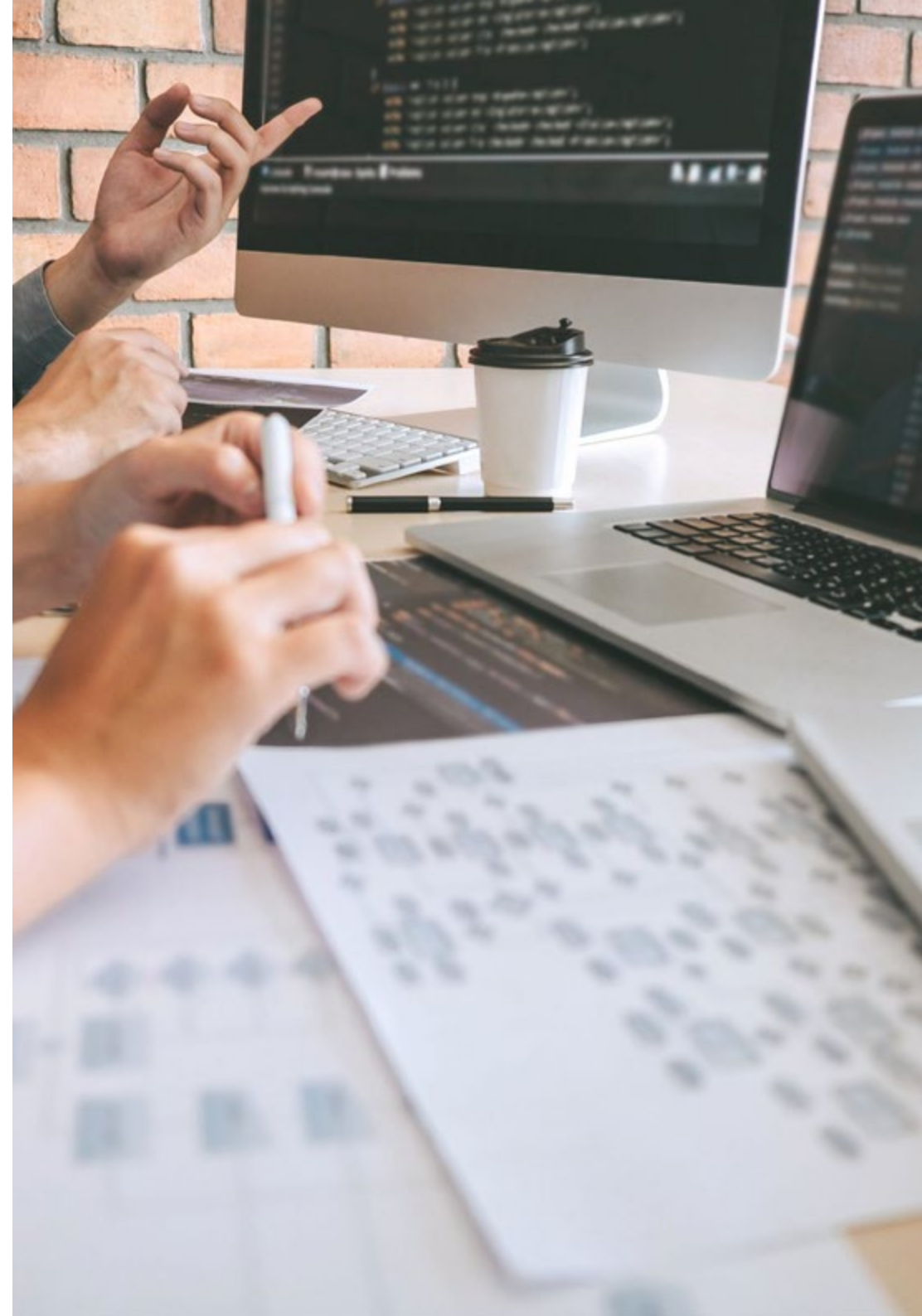
“

Preventing threats and making a plan to address them will help you improve your work as a project manager”



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 to communicate the reality of a technology project
- ◆ Understand and manage the risks of technology projects





Specific Objectives

Module 1. Introduction to Technology Project Design and Management and Technology Project Integration Management

- ◆ Introduce students to the basic concepts of Technology Project Management, such as the role of the manager and the definition of the project
- ◆ Know the regulations and best practices of technology project management, PRINCE2, PMP and ISO 21500:2012
- ◆ Define the plan for the design and management of Technology Projects

Module 2. Technology Project Quality Management

- ◆ 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

Module 3. Technology Project Risk Management

- ◆ Define the threats and opportunities of the project, knowing the different types of threats and opportunities
- ◆ Develop a risk management plan using appropriate tools and techniques
- ◆ Establishing a qualitative and quantitative analysis of project risks
- ◆ Plan and implement a response to the potential risks of a technological job

Module 4. Technology Project Procurement Management

- ◆ Control the main activities of the project manager and those contained in the contract
- ◆ Define a procurement strategy to suit different environments and types of contracts
- ◆ Learn how to negotiate with suppliers
- ◆ Search, select and evaluate bids



Plan innovative strategies to respond to potential risks affecting your work plan"

03

Course Management

The Postgraduate Diploma in Quality, Risk and Procurement Management of a Technology Project is taught by qualified faculty with many years of work and academic experience. They will provide students with the best knowledge in a practical and dynamic way, to guarantee that it can be applied almost immediately. This will represent a great improvement opportunity for those who wish to test their skills and capabilities in a technology team.



“

It has a group of professionals trained to teach you the keys to the quality management of a technological 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 Bicentenario 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 structure of this program is designed to address the concepts concerning quality management and risk prevention in a Technology Project. It will also enable students to develop their skills in contract management between customers and suppliers. To this end, they will learn how to take preventive measures against risks and to carry out an exhaustive control of the regulations in order to guarantee the quality and execution of a job.





“

A syllabus that adapts to your needs to position you among the best in the industry”

Module 1. Introduction to Technology Project Design and Management and Technology Project Integration Management

- 1.1. Introduction to Technology Project Management
 - 1.1.1. The Role of the Project Manager
 - 1.1.2. Project Definition
 - 1.1.3. Organizational Structure
- 1.2. Project Management, Program Management, and Portfolio Management
 - 1.2.1. Portfolios, Programs and Projects
 - 1.2.2. Strategic Management
- 1.3. Standards and Good Practices for Technology Project Management
 - 1.3.1. PRINCE2
 - 1.3.2. PMP
 - 1.3.3. ISO 21500:2012
- 1.4. Organizational Influences on Technology Project Design and Management
 - 1.4.1. Environmental Factors of a Company
 - 1.4.2. Assets of an Organization's Processes
- 1.5. Technology Project Management Processes
 - 1.5.1. Technology Project Life Cycle
 - 1.5.2. Process Groups
 - 1.5.3. Dynamics of Process Groups
- 1.6. Development of the Technology Projects Constitution Act
 - 1.6.1. Definition of the Technology Projects Constitution Act
 - 1.6.2. Tools and Techniques
- 1.7. Development of the Plan for Technology Project Design and Management
 - 1.7.1. Definition of the Plan for Technology Project Design and Management
 - 1.7.2. Tools and Techniques
- 1.8. Knowledge Management of Technological Projects
 - 1.8.1. Importance of Knowledge Management in Technology Projects
 - 1.8.2. Tools and Techniques
- 1.9. Monitoring the Technology Projects Work
 - 1.9.1. Work Monitoring and Control
 - 1.9.2. Follow-up Reports on Technological Projects
 - 1.9.3. Tools and Techniques

- 1.10. Integrated Control of Changes in Technological Projects
 - 1.10.1. Objectives and Benefits of Project Change Control
 - 1.10.2. CCB (Change Control Board)
 - 1.10.3. Tools and Techniques
- 1.11. Delivery and Closing of Technology Projects
 - 1.11.1. Objectives and Benefits of Project Closure
 - 1.11.2. Tools and Techniques

Module 2. Technology Project Quality Management

- 2.1. Importance of Quality Management in Projects
 - 2.1.1. Key Concepts
 - 2.1.2. Difference between Quality and Grade
 - 2.1.3. Precision
 - 2.1.4. Accuracy
 - 2.1.5. Metrics
- 2.2. Quality Theorists
 - 2.2.1. Edwards Deming
 - 2.2.1.1. Shewart Deming Cycle (Do-Check-Act Plan)
 - 2.2.2. Continuing Improvement
 - 2.2.3. Joseph Juran. Pareto Principle
 - 2.2.3.1. Fitness for Purpose Theory
 - 2.2.4. Total Quality Management Theory
 - 2.2.5. Kaoru Ishikawa (Herringbone)
 - 2.2.6. Philip Crosby (Cost of Low Quality)
- 2.3. Regulations: ISO 21500
 - 2.3.1. Introduction
 - 2.3.2. Background and History
 - 2.3.3. Objectives and characteristics
 - 2.3.4. Process group-Subject group
 - 2.3.5. ISO 21500 vs. PMBOK
 - 2.3.6. Future of the Standard

- 2.4. Emerging Trends and Practices in Quality Management
 - 2.4.1. Policy Compliance and Auditing
 - 2.4.2. Standards and Compliance
 - 2.4.3. Continuing Improvement
 - 2.4.4. Stakeholder Involvement
 - 2.4.5. Recurring Retrospectives
 - 2.4.6. Subsequent Retrospectives
- 2.5. Quality Management Planning
 - 2.5.1. Cost-benefit Analysis
 - 2.5.2. Multi-criteria Decision Analysis
 - 2.5.3. Test Planning and Inspection
 - 2.5.4. Flow Diagrams
 - 2.5.5. Logical Data Model
 - 2.5.6. Matrix Diagram
 - 2.5.7. Interrelationship Digraphs
- 2.6. Quality Compliance and Noncompliance Costs
 - 2.6.1. Compliance Costs
 - 2.6.2. Non-Compliance or Non-Conformance Costs
 - 2.6.3. Prevention Costs
 - 2.6.4. Valuation Costs
 - 2.6.5. Internal Failures
 - 2.6.6. External Failures
 - 2.6.7. Marginal Cost of Quality
 - 2.6.8. Optimum Quality
- 2.7. Quality Management
 - 2.7.1. Checklists
 - 2.7.2. Analysis of Alternatives
 - 2.7.3. Document Analysis
 - 2.7.4. Process Analysis
 - 2.7.5. Root Cause Analysis
 - 2.7.6. Cause-and-effect Diagrams
 - 2.7.7. Histograms
 - 2.7.8. Scatter Plots
 - 2.7.9. Design for X
 - 2.7.10. Quality Improvement Methods

- 2.8. Quality Audits
 - 2.8.1. What is an Internal Quality Audit?
 - 2.8.2. Different Types of Audits
 - 2.8.3. Objectives of an Internal Audit
 - 2.8.4. Benefits of Internal Audits
 - 2.8.5. Actors Involved in Internal Auditing
 - 2.8.6. Internal Audit Procedure
- 2.9. Quality Control
 - 2.9.1. Verification Sheets
 - 2.9.2. Statistical Sampling
 - 2.9.3. Questionnaires and Surveys
 - 2.9.4. Performance Reviews
 - 2.9.5. Inspection
 - 2.9.6. Product Testing/Evaluation
 - 2.9.7. Retrospectives and Lessons Learned

Module 3. Technology Project Risk Management

- 3.1. Introduction to Risk Management
 - 3.1.1. Definition of Risks
 - 3.1.1.1. Threats
 - 3.1.1.2. Opportunities
 - 3.1.2. Types of Risks
- 3.2. Basic Concepts
 - 3.2.1. Severity
 - 3.2.2. Attitudes Towards Risk
 - 3.2.3. Individual Risk vs. General Risk
 - 3.2.4. Risk Categories
- 3.3. Risk Management: Benefits
- 3.4. Trends in Risk Management
 - 3.4.1. Non-Event Risks
 - 3.4.2. Project Resilience
 - 3.4.3. Risks in Agile and Adaptive Environments
- 3.5. Risk Management Planning
 - 3.5.1. Develop the Risk Management Plan
 - 3.5.2. Tools and Techniques

- 3.6. Risk Identification
 - 3.6.1. The Project Risk Register
 - 3.6.2. Tools and Techniques
- 3.7. Perform Qualitative Risk Analysis
 - 3.7.1. Qualitative Risk Analysis
 - 3.7.1.2. Definition
 - 3.7.1.3. Representation
 - 3.7.2. Tools and Techniques
- 3.8. Perform Quantitative Risk Analysis
 - 3.8.1. Quantitative Risk Analysis: Definition and Representation
 - 3.8.2. Tools and Techniques
 - 3.8.3. Modelling and Simulation
 - 3.8.4. Sensitivity Analysis
 - 3.8.5. Contingency Reserve Calculation
- 3.9. Risk Response Planning and Implementation
 - 3.9.1. Develop Risk Response Plan
 - 3.9.2. Types of Threat Strategies
 - 3.9.3. Types of Strategies for Opportunities
 - 3.9.4. Reserves Management
 - 3.9.5. Tools and Techniques
 - 3.9.6. Implementation of Risk Response
- 3.10. Risk Monitoring
 - 3.10.1. Risk Monitoring Concepts
 - 3.10.2. Tools and Techniques

Module 4. Technology Project Procurement Management

- 4.1. Introduction to Acquisition Management
 - 4.1.1. Definition of Contract
 - 4.1.2. Legal Framework acquisitions
- 4.2. Basic Concepts
 - 4.2.1. Definition of Contract
 - 4.2.2. The Project Manager and the Contract
 - 4.2.3. Main Activities
 - 4.2.4. Centralized and Decentralized Contracting





- 4.3. Procurement Management: Benefits
 - 4.3.1. Definition of the Acquisition Strategy
 - 4.3.2. Types of Strategies
- 4.4. Acquisitions in Adaptive Environments
- 4.5. Types of Contracts
 - 4.5.1. Fixed Price Contracts
 - 4.5.2. Reimbursable Cost Contracts
 - 4.5.3. Time and Materials Contracts
- 4.6. Procurement Documentation
 - 4.6.1. Types of Documents in the Context of an Acquisition
 - 4.6.2. Document Flows in Procurement Management
- 4.7. Negotiation with Suppliers
 - 4.7.1. Supplier Negotiation Objectives
 - 4.7.2. Negotiation Techniques with Suppliers
- 4.8. Procurement Management Planning
 - 4.8.1. Procurement Management Plan
 - 4.8.2. Tools and Techniques
- 4.9. Procurement
 - 4.9.1. Search, Selection and Evaluation of Bids
 - 4.9.2. Tools and Techniques
 - 4.9.3. Bid Weighting Matrix
- 4.10. Procurement Monitoring and Control
 - 4.10.1. Procurement Monitoring and Control Points by Contract Type
 - 4.10.2. Tools and Techniques

“ Standards and good practices ensure the quality of your work as the IT manager of a project”

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.



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

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 Diploma in Quality, Risk and Procurement Management of a Technology Project guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

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

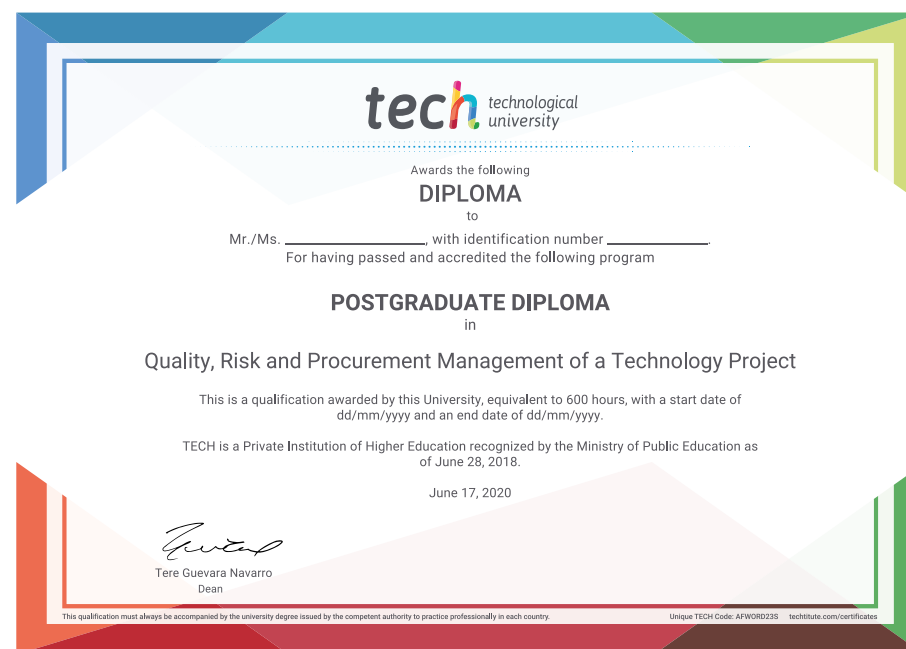
This **Postgraduate Diploma in Quality, Risk and Procurement Management of a Technology Project** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Quality, Risk and Procurement Management of a Technology Project**

Official N° of Hours: **600 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.

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



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- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
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- » Exams: **online**

Postgraduate Diploma

Quality, Risk and Procurement Management of a Technology Project

