



Postgraduate Diploma Quality Management in Lean Manufacturing

» Course Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

» Target Group: University Graduates who have previously completed any of the degrees in the fields of Social and Legal Sciences, Administrative and Business Sciences

Website: www.techtitute.com/us/eschool-of-business/postgraduate-diploma/postgraduate-diploma-quality-management-lean-manufacturing

Index

02 Why Study at TECH? Why Our Program? Objectives Welcome p. 4 p. 6 p. 10 p. 14 06 Our Students' Profiles Methodology Structure and Content p. 18 p. 26 p. 34 80 Course Management Benefits for Your Company Impact on Your Career p. 38 p. 42 p. 46 Certificate

01 **Welcome**

The Lean Manufacturing system inspired by the automaker Toyota has revolutionized quality management. A value that distinguishes organizations from the rest of the competitors, thus achieving customer satisfaction. For this reason, professionals specialized in this area are increasingly in demand and appreciated by companies. Because of this, given its relevance, TECH has designed this 100% online program that leads the graduate to delve into the implementation of continuous improvement processes, the identification of Muda and its elimination in order to optimize the production of a company. All this, in addition, with a syllabus prepared by experts in this field with a consolidated trajectory in the business world.









tech 08 | Why Study at TECH?

At TECH Technological University



Innovation

The university offers an online learning model that balances the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"Microsoft Europe Success Story", for integrating the innovative, interactive multi-video system.



The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

95%

of TECH students successfully complete their studies



Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

+100000

+200

executives prepared each year

different nationalities



Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

+500

collaborative agreements with leading companies



Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.



B

Learn with the best

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



At TECH, you will have access to the most rigorous and up-to-date case analyses in academia"

Why Study at TECH? | 09 tech

TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



Analysis

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



Academic Excellence

TECH offers students the best online learning methodology. The university combines the Relearning method (postgraduate learning methodology with the best international valuation) with the Case Study. Tradition and vanguard in a difficult balance, and in the context of the most demanding educational itinerary.



Economy of Scale

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.





tech 12 | Why Our Program?

This program will provide you with a multitude of professional and personal advantages, among which we highlight the following:



A Strong Boost to Your Career

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

70% of students achieve positive career development in less than 2 years.



Develop a strategic and global vision of the company

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional fields.

Our global vision of companies will improve your strategic vision.



Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

You will work on more than 100 real senior management cases.



You will take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

45% of graduates are promoted internally.



Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

You will find a network of contacts that will be instrumental for professional development.



Thoroughly develop business projects.

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different fields in companies.

20% of our students develop their own business idea.



Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

Improve your communication and leadership skills and enhance your career.



You will be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified teachers from the most prestigious universities in the world: the TECH Technological University community.

We give you the opportunity to study with a team of world-renowned teachers.





tech 16 | Objectives

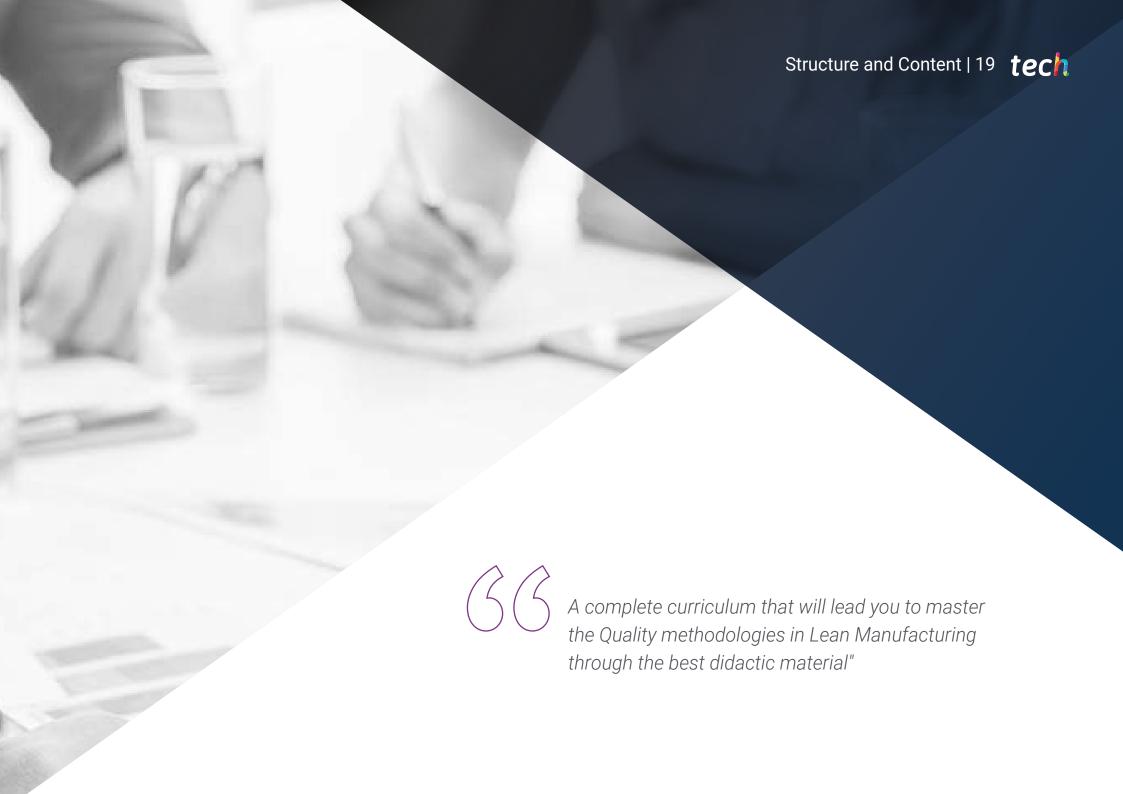
TECH makes the goals of their students their own goals too Working together to achieve them

The Postgraduate Diploma in Quality Management in Lean Manufacturing will train the student to:









tech 20 | Structure and Content

Syllabus

The excellent teaching team that makes up this university program has put together a program that addresses waste elimination, process standardization and quality maximization. A Lean Manufacturing system that allows to identify problems and implement solutions in an effective way and according to the company's philosophy.

A learning process that will be possible to achieve thanks to the exhaustive content and the multitude of didactic resources that complement it. So, students will have access to video summaries of each topic, specialized readings, case study simulations and detailed videos. In this way, the graduate will be able to incorporate throughout the 6 months of this academic itinerary, the methodologies and tools to make organizations more efficient and competitive.

Likewise, thanks to the Relearning method, based on the continuous reiteration of the content of this program, it will allow the professional to advance naturally through the syllabus and consolidate the new concepts covered in this academic option.

A unique opportunity to take a quality university program, compatible with the most demanding responsibilities. Students only need a digital device with an Internet connection to view, at any time of the day, the content hosted on the online platform. An unparalleled academic option offered only by TECH, the world's largest digital university.

This Postgraduate Diploma is developed over 6 months and is divided into 3 modules:

Walue and Waste (Duration): Identification and elimination of non-value-adding activities

Module 2 Lean Quality Management

Module 3 Continuous improvement, Kaizen



Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Diploma in Quality Management in Lean Manufacturing completely online. During the 6 months of the specialization, the student will be able to access all the contents of this program at any time, which will allow them to self-manage the study time.

A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.

tech 22 | Structure and Content

Module 1. Value and Waste (Duration	Module 1. Value and Waste (Duration): Identification and elimination of non-value-added activities						
 1.1. Concept of "Value" from the Customer's Perspective 1.1.1. Satisfaction of customer needs 1.1.2. Perceived value vs. Tangible value 1.1.3. Value for money 	 1.2. Quality Function Deployment 1.2.1. Quality Function Deployment. Concept and Definition 1.2.2. Techniques for identifying customer needs 1.2.3. Quality deployment 	1.3. Mura in Lean Manufacturing1.3.1. Demand Variability1.3.2. Production Variability1.3.3. Supply Variability	1.4. Muri in Lean Manufacturing1.4.1. Equipment overload1.4.2. Overloading people1.4.3. System overload				
1.5. Mudas related to Manufacturin1.5.1. Overproduction1.5.2. Types and Causes of Overproduction1.5.3. Unnecessary processing	1.6. Quality-related mutations 1.6.1. Quality Defects for rework or scrap 1.6.2. Causes of Quality Defects 1.6.3. Scrap vs. rework	1.7. Transportation related mutations1.7.1. Unnecessary Transportation1.7.2. Causes of Waiting Times1.7.3. Strategies to avoid/minimize waiting times	 1.8. Excess Inventory-related debt 1.8.1. Excess inventories of PM 1.8.2. Excess of in-process inventories 1.8.3. Excess inventories of finished product 				
 1.9. Mudas related to the waiting/social times 1.9.1. Types of waiting time 1.9.2. Causes of waiting times 1.9.3. Strategies to avoid/minimize waiting time 	1.10. New Mudas defined 1.10.1. Lack of Staff Training 1.10.2. Poor utilization of Staff Skills and Abilities 1.10.3. Resources dedicated to non-strategic or priority processes						

Mod	ule 2. Lean quality management					
2.1.2.1.1.2.1.2.2.1.3.	in Lean Manufacturing Quality defined as customer satisfaction Production quality: consistency and conformity	2.2.1. 2.2.2. 2.2.3.	Quality measurement: quality indicators Definition of indicators Construction of indicators Examples of a quality scorecard		Quality systems and lean quality vision Quality and regulatory Systems Compatibility of ISO - TS with Lean Manufacturing Compatibility of EFQM and Lean Manufacturing	(Gemba) and Quality Management. Relevance
2.5. 2.5.1. 2.5.2. 2.5.3.	Standardization and Simplification in quality management using "Standard Work" Standard Work. Concept and benefits Application of Standard Work in industry Example of the application of Standard Work in a process	2.6.1. 2.6.2. 2.6.3.	The Jidoka philosophy for early detection of quality problems Detection of quality problems at source Production line stoppage Examples of the application of the Jidoka philosophy in industry	2.7.1. 2.7.2. 2.7.3.	for Quality Management Definition, origin and benefits of Andon	"Poka-Yoke. Quality Technology PokaYoke. Types and causes of errors that prevent Poka-yoke design process Examples of Poka- Yoke
2.9. 2.9.1. 2.9.2. 2.9.3.	Visual Management Process visualization Visual signage Visual records	2.10.1	Lean and IOT quality management and Blockchain Benefits of combining IoT and Iean quality management 2.10.1.1. Sensorization for process monitoring 2.10.1.2. Real-time traceability systems and data analytics for quality management Benefits of combining Lean and Blockchain in quality management 2.10.2.1. Application of smart contracts for quality assurance and regulatory compliance 2.10.2.2. Design and implementation of a secure and scalable Blockchain infrastructure for quality management			

Mod	ule 3 . Continuous improvement, Kaizer	า					
3.1.	Continuous Improvement and Kaizen in Lean Manufacturing	3.2.	Implementation of the PDCA/PDSA cycle	3.3.	Implementation of "6M" to identify opportunities for improvement	3.4.	Statistical Methods of Process Control
3.1.2.	Continuous improvement and Kaizen The PDCA/PDSA cycle. Comparison of problem solving methods Encouraging the participation of the entire organization in kaizen	3.2.4.	Do Check/Study	3.3.2. 3.3.3. 3.3.4. 3.3.5.	Method Analysis Machine Analysis Materials Analysis Measurement system analysis Analysis of the external environment Analysis of the problems generated by People?	3.4.2.	Process control and statistical methods in process control Statistics for process control Common statistical methods in process control
3.5. 3.5.1. 3.5.2. 3.5.3.	Causal Analysis: Data Science Ishikawa Diagram 5 reasons Other techniques for root cause analysis	3.6.1. 3.6.2. 3.6.3. 3.6.4.	Application of the 5 S's in continuous improvement Seiri (Classification): Elimination of unnecessary elements Seiton (Order): Workplace organization Seiso (Cleaning): Maintaining a clean and orderly work environment Seiketsu (Standardization): Establishment of standards and procedures Shitsuke (Discipline): Maintenance of standards and continuous improvement		Continuous improvement and IoT Real-time data collection for process analysis Process automation to reduce variability and improve quality Efficiency improvement and cost reduction through remote process monitoring	3.8.2.	Sustaining the Kaizen culture in the long term Long-term commitment of senior management Integration of Kaizen as part of the company's culture and not as an add-on/accessory Measuring results and long-term incentives for improvements, adapting them to the organizational context
3.9.	Practical examples of continuous improvement in different industries	3.10	Future trends in continuous improvement				
3.9.1. 3.9.2. 3.9.3.	Example in the automotive industry Example in the food industry Example in the construction supply industry	3.10.2	Development of digital tools and platforms for continuous improvement. Incorporation of new project management approaches: User-centered design and evidence-based development. Incorporating emotional intelligence in continuous improvement				





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.



tech 28 | Methodology

TECH Business School uses the 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.





This program prepares you to face business challenges in uncertain environments and achieve business success.



Our program prepares you to face new challenges in uncertain environments and achieve success in your career.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. 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 business reality is taken into account.



You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments"

The case method has been the most widely used learning system among the world's leading business 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 we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

tech 30 | Methodology

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.

Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.

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 online business school is the only one in the world licensed to incorporate 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.



Methodology | 31 tech

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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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.



Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



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.





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 senior management 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

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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.

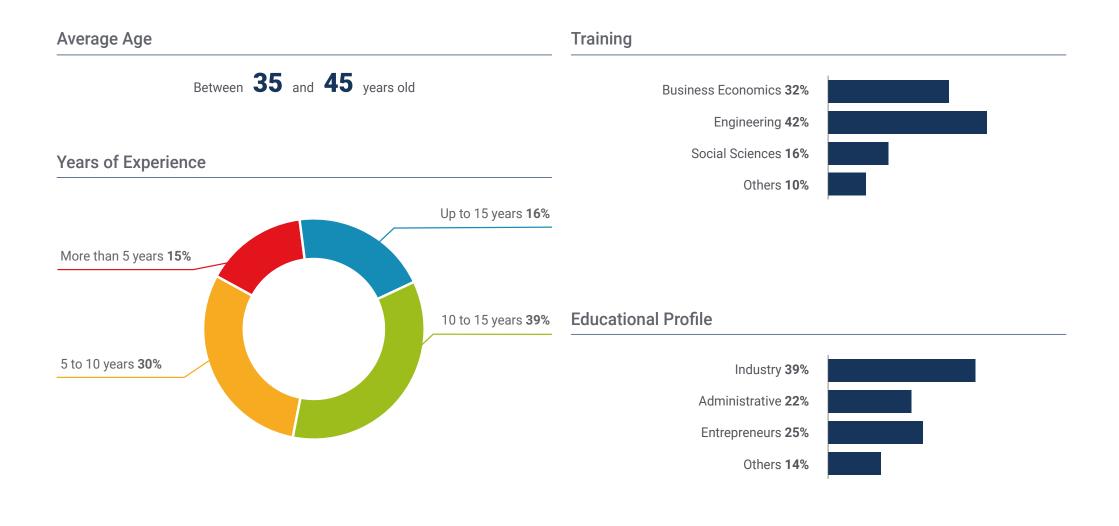


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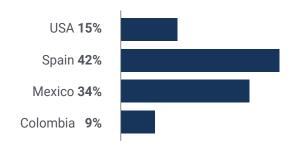




tech 36 | Our Students' Profiles



Geographical Distribution





Ruth Saez Smith

Director of Corporate Lean Manufacturing

"This program was an excellent opportunity to be able to progress in the industrial sector, incorporate quality strategies that are really effective and benefit both the customer and the company's productivity"





tech 40 | Course Management

Management



Mr. Luis Jover Miravitlles

- President and Founding Partner Grupo Quarck, S.L. Founding Partner
- Senior Partner in LOGIXS
- Vice President of €-Corp. S.L
- IQS Executive Education Director
- Associate Professor at IE Business School
- Coordinator of the Master's Degree in Integral Business Management at the Universidad Iberoamericana in Mexico City.
- Advisor to the employers' association Cecot
- Chemical Engineer at the Chemical Institute of Sarria (IQS).
- Master in Business Administration MBA IESE
- Member of the Hispack organizing committee

Professors

Mr. Rubén Gambarte Montiel

- Industrial Consultant
- Industrial Digital Transformation Consultant and Advisor at Bestplant
- Associate Consultant in Lean Management and Lean Six Sigma at BPR goup SRL, Actio Global, AYO Consulting
- Quality Assurance Manager
- Operations Manager y Lean Manager en Solfer Componenti SRL
- Graduate in Chemical Engineering from the University of Cantabria.
- Master's Degree: Executive Lean Supply Chain Management. Operations management by the Polytechnic University of Catalonia Foundation.
- Master's Degree in Lean Six Sigma in Green Belt & Black Belt by Festo Academy gustavo







Are you ready to take the leap? Excellent professional development awaits you

TECH's Postgraduate Diploma in Quality Management in Lean Manufacturing is an intensive program that prepares you to face challenges and business decisions in the field of Engineering. The main objective is to promote your personal and professional growth. Helping you achieve success.

If you want to improve yourself, make a positive change at a professional level, and network with the best, then this is the place for you.

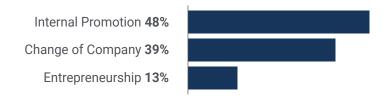
You will be able to distinguish yourself from the rest of your competitors thanks to this specialized training in Lean Manufacturing.

It implements the Kaisen methodology and contributes to a good working environment and business success.

Time of Change



Type of change



Salary increase

This program represents a salary increase of more than 27% for our students

\$ 70.000

A salary increase of \$ 88.900





tech 48 | Benefits for Your Company

Developing and retaining talent in companies is the best long-term investment.



Growth of talent and intellectual capital

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.



Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.



Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.



Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.





Project Development

The professional can work on a real project or develop new projects in the field of R & D or business development of your company.



Increased competitiveness

This program will equip students with the skills to take on new challenges and drive the organization forward.





tech 52 | Certificate

This **Postgraduate Diploma in Quality Management in Lean Manufacturing** 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 Universitywill** 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 Management in Lean Manufacturing

Official N° of Hours: 450 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.



Postgraduate Diploma Quality Management in Lean Manufacturing

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

