

# Postgraduate Certificate Process Design in Lean Manufacturing



## Postgraduate Certificate Process Design in Lean Manufacturing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » 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.techtute.com/us/school-of-business/postgraduate-certificate/process-design-lean-manufacturing](http://www.techtute.com/us/school-of-business/postgraduate-certificate/process-design-lean-manufacturing)

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# 01 Welcome

Process Design in Lean Manufacturing has undergone a constant evolution over the years, adapting to the changing demands of the industry. Its focus on waste elimination and continuous improvement has led to the incorporation of new tools and techniques, such as value stream mapping and design for manufacturability. These upgrades have enabled business professionals to optimize efficiency, reduce costs and improve quality in their operations. So, knowing these processes will allow professionals to catapult their careers, which has led TECH to create this 100% online program, easily accessible from any device with an Internet connection.



Postgraduate Certificate in Process Design in Lean Manufacturing  
TECH Global University



“

*This Postgraduate Certificate has the innovative Relearning learning model, so you will learn as you go and you will face real and simulation cases”*

02

# Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class center for intensive managerial skills education.



“

*TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success”*



## At TECH Global 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**

executives prepared each year

**+200**

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.





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.



### 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"*

03

# Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.



“

*We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you education of the highest academic level”*

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

**01**

### 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.*

**02**

### 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.*

**03**

### 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.*

**04**

### 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.*

05

### 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.*

06

### 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.*

07

### 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.*

08

### 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 Global University community.

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

# 04

# Objectives

TECH aims to select academic subjects that enable students to enhance their skills and competencies to achieve their career goals. To achieve this, the Relearning methodology is used, which ensures a practical approach through activities based on real cases and simulations. In this way, the professional will acquire knowledge and skills in a growing field in continuous transformation, such as Lean Manufacturing processes.



“

*Get up to speed with Lean Flow System processes, presented in high quality audiovisual resources”*



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

The Postgraduate Certificate in Process Design in Lean Manufacturing will enable the student to:

01

Analyze and be able to distinguish the lean philosophy from other approaches to operations improvement

02

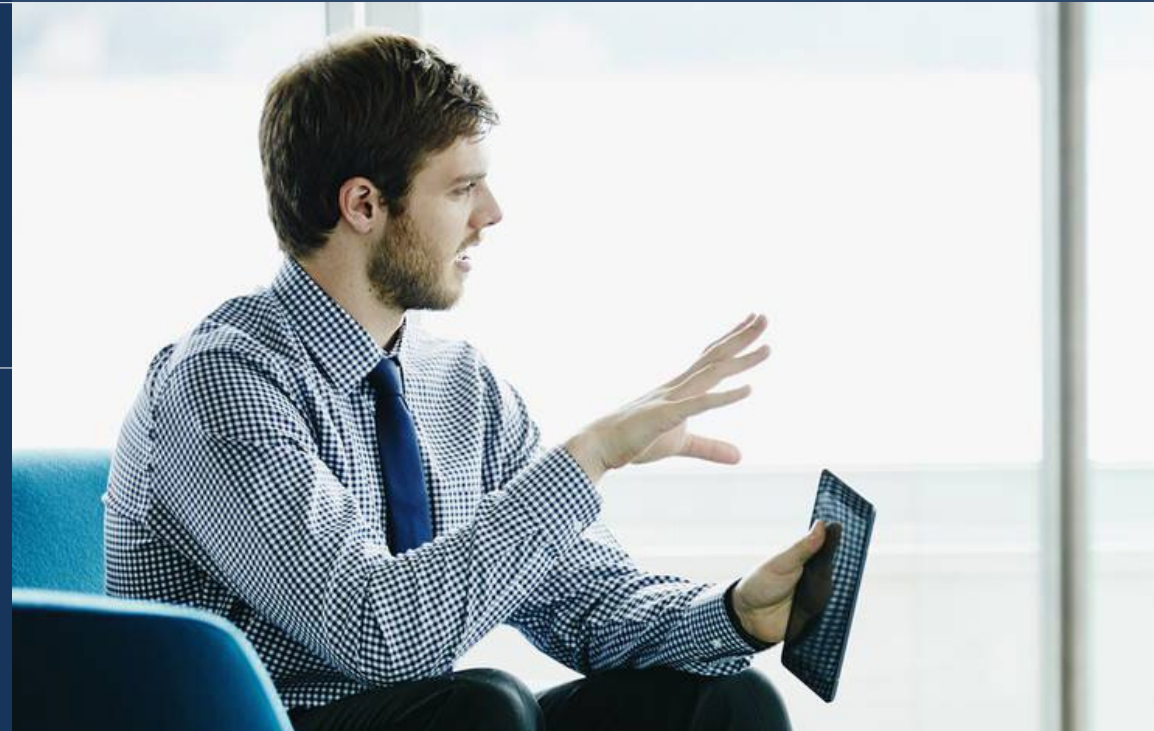
Distinguish the different types of industrial processes in which it is possible to act

03

Differentiate the different types of flow in an operational context

04

Identify the types of demand that our industry must satisfy



05

Develop the tools and techniques used in Lean Manufacturing quality management

06

Evaluate organizational, operational and management systems, based on Operational Excellence and High Performance dynamics:  
*LEAN*

07

Analyze the keys to implement the Lean Manufacturing philosophy in a company

08

Delve into the best practices for the successful implementation of Lean Manufacturing in an organization



05

# Structure and Content

The program has been developed by TECH in collaboration with its team of experts in Process Design in Lean Manufacturing. Over a 6-week period, students will be provided with the most up-to-date and accurate information. All content will be available on the Online Campus, accessible from any device with an Internet connection, which provides the flexibility of accessing the material at any time and place, without fixed schedules or the need to travel to on-site centers.





*You will learn about Lean support tools:  
5S, Visual Management, SMED”*

## Syllabus

The Postgraduate Certificate in Process Design in Lean Manufacturing offers numerous benefits for those professionals who wish to improve their skills in operations management and process optimization. One of the outstanding features of the program is its 100% online modality. This allows students to access content from anywhere and at any time, adapting learning to their schedules and needs.

The Relearning methodology used in this program focuses on the practical approach and the application of knowledge in real situations. Through activities based on case studies and simulations, participants develop practical skills that they can apply directly in their work environment. This methodology promotes meaningful and lasting learning, allowing students to consolidate their knowledge and skills in Lean Manufacturing Process Design.

In summary, the Postgraduate Certificate in Process Design in Lean Manufacturing is an excellent opportunity for those professionals looking to improve their competencies in process management. This guarantees a practical and applied approach, providing students with the necessary tools to excel in the field of Lean Manufacturing.

This Postgraduate Certificate is developed over 6 weeks consists of 1 module:

### Module 1

Continuous flow: Process Design for smooth and continuous workflows



### Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in Process Design in Lean Manufacturing completely online. Throughout the 6 weeks of the program, you will be able to access all the program contents at any time, allowing you to self-manage your study time.

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

**Module 1.** Continuous flow: Process Design for smooth and continuous workflows

**1.1. Continuous Flow**

- 1.1.1. Flow Creation in the Toyota Production System
- 1.1.2. The Fourteen Principles of the Toyota Way Culture
- 1.1.3. Total Flow Management, the union of Flow Creation and Pull Flow System

**1.2. Processes**

- 1.2.1. Typology of industrial processes
- 1.2.2. Departments vs. Processes vs. Flows
- 1.2.3. Process integration

**1.3. Flows**

- 1.3.1. The different types of flows: Materials, Equipment, People and Information
- 1.3.2. Job-shop vs. Flow-shop
- 1.3.3. Turbulent flows vs. Linear flows

**1.4. Machines, Equipment and Lines**

- 1.4.1. Hardware Reliability as an Essential Element for Flow Creation
- 1.4.2. Jidoka philosophy as an essential element in Flow Creation
- 1.4.3. Monument machine vs. Lean Machine

**1.5. Materials**

- 1.5.1. Traditional plant layout vs. Lean plant layout
- 1.5.2. PFEP (Plan-For-Each-Part)
- 1.5.3. Batch production vs. One-piece-flow (Continuous flow)

**1.6. Person**

- 1.6.1. The Internal Customer, concept in a lean environment
- 1.6.2. The role of a lean manager
- 1.6.3. The role of a lean operator

**1.7. Information**

- 1.7.1. Enterprise Resource Planning System (ERP)
- 1.7.2. Information systems specific to the industrial environment
- 1.7.3. Dashboard, as part of the Daily Management System

**1.8. Lean Flow System**

- 1.8.1. Muda expulsion in the production process
- 1.8.2. The Autonomous Cell as a lean paradigm
- 1.8.3. Lean support tools: 5S, Visual Management, SMED

**1.9. Flow Creation application examples**

- 1.9.1. Example of implementation in the automotive sector
- 1.9.2. Example of application in the metallurgical sector
- 1.9.3. Example of use in the food sector

**1.10. Creation of Flow: Design, Implementation and Improvement of Production Processes. Practical Application**

- 1.10.1. Design for flow creation
- 1.10.2. Implementation of continuous flow
- 1.10.3. Improvement of production processes



*You will get up to speed with Turbulent Flows and Linear Flows, understanding their operation and applicability for each specific business”*





# 06

# 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"*

## 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.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*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.

## 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.



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.





### 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 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

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.



07

# Our Students' Profiles

The Postgraduate Certificate is aimed at Graduates, Diploma Holders and University Graduates who have previously completed any of the following programs in the fields of Social and Legal Sciences, Administration and Economics.

This program uses a multidisciplinary approach as the students have a diverse set of academic profiles and represent multiple nationalities.

Professionals who, being university graduates in any area, have two years of work experience in the business and Lean Manufacturing fields, may also take the Postgraduate Certificate.





“

*If you have a background in Process Design in Lean Manufacturing and are looking for an opportunity to advance your career while continuing to work, this program is ideal for you”*

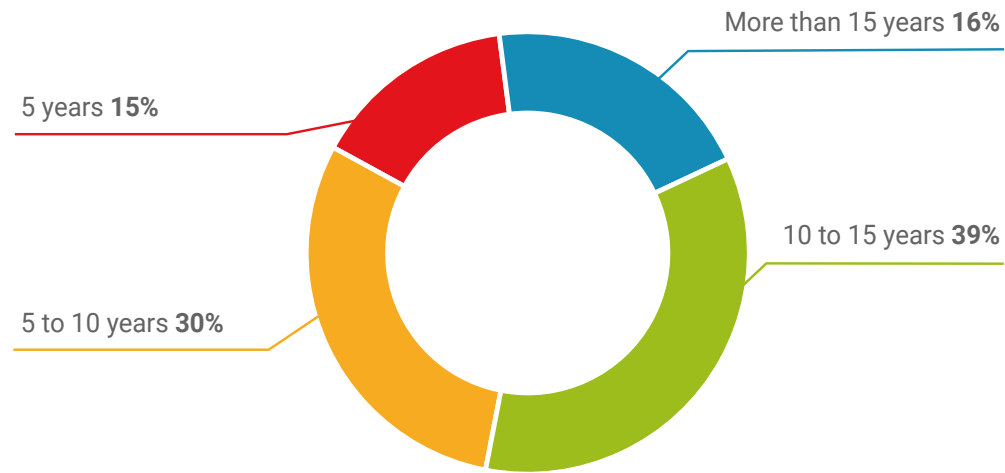
### Average Age

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Between **35** and **45** years old

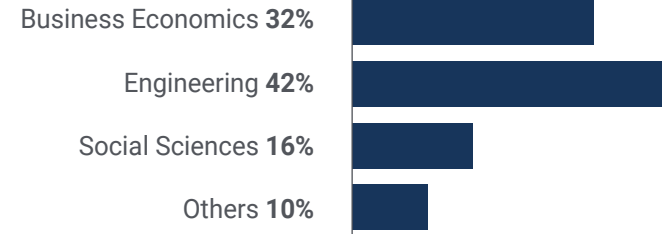
### Years of Experience

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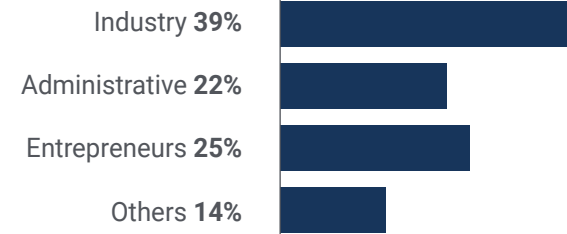
### Training

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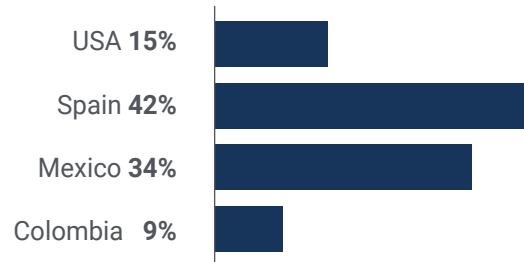
### Educational Profile

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## Geographical Distribution

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## Leopoldo Rodríguez Franco

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Industrial entrepreneur

*"In this Postgraduate Certificate I learned how to optimize production processes, eliminate waste and improve efficiency. The expert professors guided me through every step, and I now have the skills necessary to face challenges in the industry"*

08

# Course Management

In order to ensure an immersive and highly rewarding experience, TECH has appointed a teaching team with extensive experience in the field of Lean Manufacturing to lead this program. These experts and specialists have worked closely together to incorporate all their knowledge into the curriculum. As a result, students will benefit from a unique and rigorous professional updating experience, thus ensuring exclusive and quality training.





“

*You will learn through high-impact audiovisual resources, designed by experts and specialists with several years of experience”*

## Management



### Mr. Luis Jover Miravittles

- ♦ 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. Josep Antoni Aguilar

- ♦ Founder and President of Actio Crealor Consulting
- ♦ Country Manager of The Kaizen Institute
- ♦ Operations & SCM Consultant
- ♦ Production Manager at Magna International
- ♦ IQS Executive Education
- ♦ Professor in EUNCET Business School
- ♦ Graduate in Business Administration from the University of Lincoln

### Mr. Pedrera Rosado, Alejandro

- ♦ Co-founder and Legal Director of Hesperian Wares LLC
- ♦ Partnerships Representative at Factorial
- ♦ Expert in Digitalization of Law
- ♦ Master's Degree in Access to the Legal Profession from the University of Extremadura
- ♦ Graduate in Law from the University of Extremadura



09

# Impact on Your Career

Attending this program has a transformative impact on a professional's career. Acquiring knowledge in this highly demanded field allows individuals to excel in the industry and access higher-level job opportunities. With skills in process optimization, waste elimination and efficiency improvement, graduates are prepared to face challenges and lead successful projects.





“

*Download the contents of this program to your everyday device and review it as often as you need to”*



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

TECH's Postgraduate Certificate in Process Design in Lean Manufacturing is an intensive program that prepares you to face challenges and business decisions in the field of Lean Manufacturing. 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.

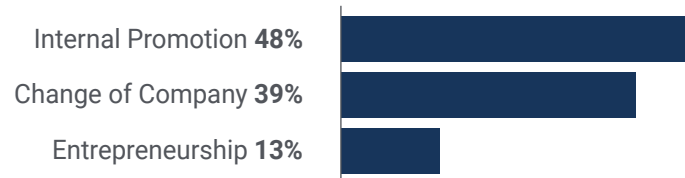
*Once you have obtained your program, you will stand out in a booming sector with great future projection.*

*You will be able to make decisions that favor the growth of a company and its corporate purpose.*

#### Time of change



#### Type of change



### Salary increase

---

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



10

# Benefits for Your Company

Having a specialist who has completed the Postgraduate Certificate in Process Design in Lean Manufacturing provides countless benefits to companies. These professionals have a deep understanding of Lean methodologies and can apply efficient techniques to optimize production processes, reduce costs and eliminate waste, ensuring effective results.





“

*Give a plus to your Curriculum Vitae and profile yourself as a differential candidate to obtain a new job”*

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

01

### 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.

---

02

### 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.

03

### Building agents of change

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

---

04

### Increased international expansion possibilities

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





05

### **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.

---

06

### **Increased competitiveness**

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

11

# Certificate

The Postgraduate Certificate in Process Design in Lean Manufacturing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University .



“

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

This program will allow you to obtain your **Postgraduate Certificate in Process Design in Lean Manufacturing** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Process Design in Lean Manufacturing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



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- » Exams: **online**



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