



Postgraduate Diploma Lean Manufacturing Implementation

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

» Target Group: University graduates, diploma and degree holders who have previously completed any of the degrees in the field of Social and Legal Sciences, Administration and Business Administration

Website: www.techtitute.com/in/school-of-business/postgraduate-diploma/postgraduate-diploma-lean-manufacturing-implementation

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01 **Welcome**

Today's organizational culture is far from traditional processes, so in order to satisfy the customer and carry out truly productive production processes, many companies are committed to implementing the Lean Manufacturing system. Mastering its main concepts and application for continuous improvement leads managers and middle managers to obtain optimal results for their organizations. Thus, this 100% online program created by TECH provides all the tools and strategies necessary to successfully implement this method. For this purpose, the professional has at his disposal a syllabus prepared by real specialists in Lean, Kaizen and project leadership, as well as 24-hour access to the most innovative didactic material.









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.





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* methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.



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.

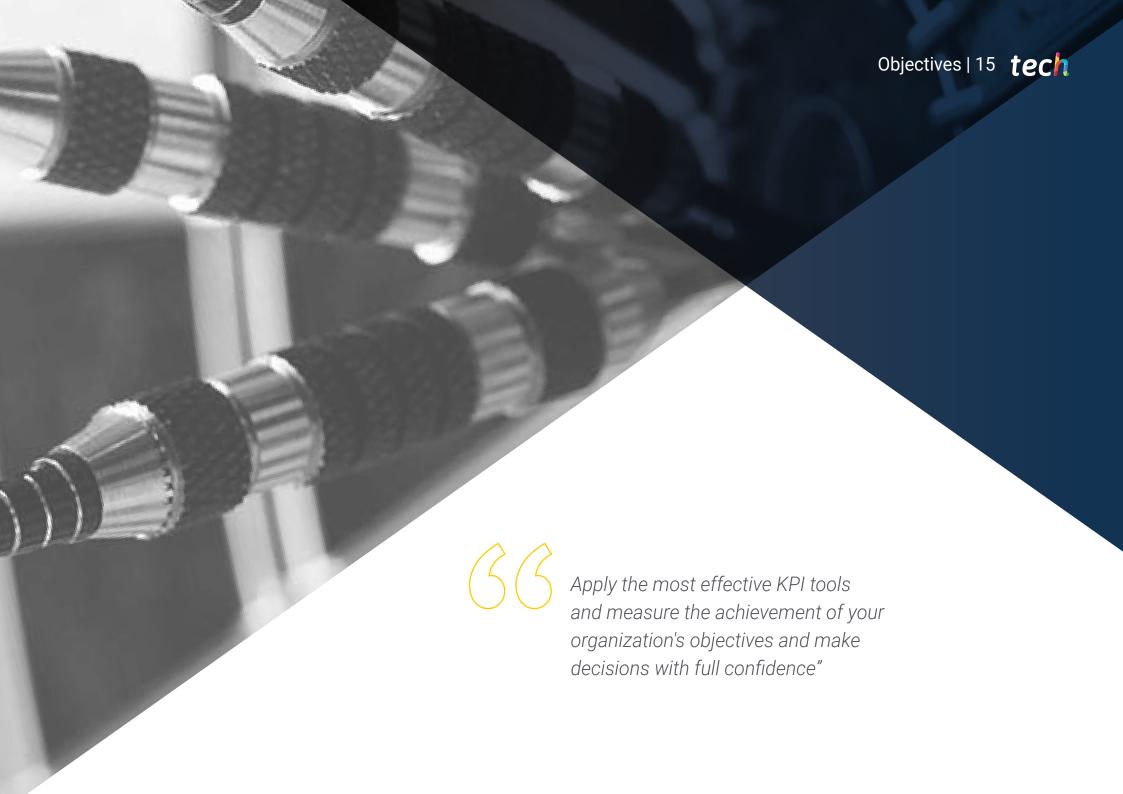


You will be part of an exclusive community

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 Lean Manufacturing Implementation will enable the student to:



Differentiate the different types of workflows in an operational context



Identify good practices and experiences in the implementation of work cells and continuous improvement groups in different industries



Design, implement and improve flow creation in an industrial environment





Analyze the use of Standard Work to standardize processes and promote continuous improvement



Develop a complete and thorough analysis of the pre-implementation situation



Specify which should be the Lean Manufacturing implementation pilots in a company



Be able to build and train a successful implementation team





Establish key performance indicators (KPIs) to measure the success of Lean Manufacturing implementation

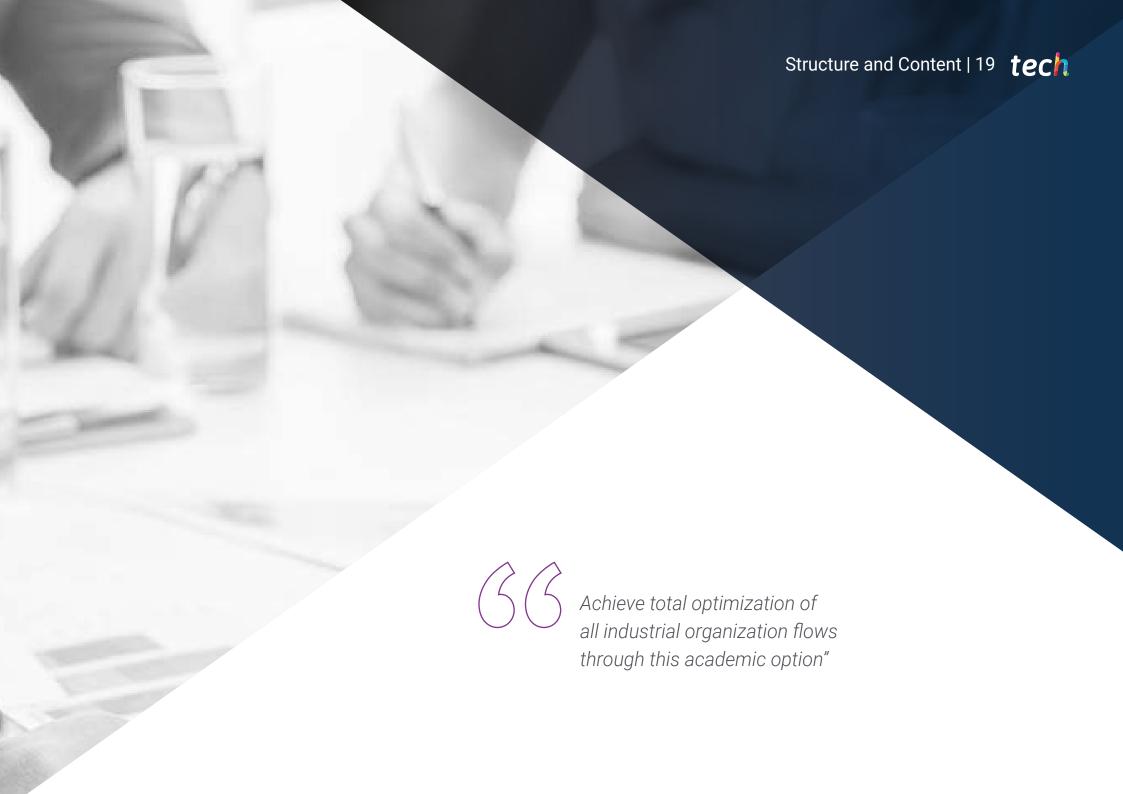


Carry out successful planning for Lean implementation



Generate skills for continuous improvement and constant implementation of improvements in production processes





tech 20 | Structure and Content

Syllabus

The Postgraduate Diploma in Lean Manufacturing Implementation is an intensive program that prepares the professional to face the challenges and business decisions in the industrial field. To this end, the teachers who have developed this program have focused their efforts on providing the most current and didactic content on this system. In this way, students who take this

In this way, students who take this academic option will obtain advanced knowledge of the design of processes for the implementation of a fluid and continuous workflow or the evolution of the organization with the implementation of Lean. In addition, the graduate will obtain the keys to develop strategies and best practices around this method.

All this, in addition, supported by quality teaching material based on video summaries of each topic, videos in detail, specialized readings and case studies that can be conveniently accessed from any electronic device with an internet connection.

Likewise, thanks to the Relearning method, the student will be able to advance naturally through the syllabus and reduce the hours of study and memorization so frequent in other pedagogies.

An academic proposal that is an excellent option for those seeking professional progression through an avant-garde university program that provides a real response to the needs of the sector.

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

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

Module 2 Evolution of production organization in a Lean system

Module 2 Lean implementation: Strategies and best practices for implementing Lean Manufacturing in an organization



Where, when and how is it taught?

TECH offers the possibility of developing this Postgraduate Diploma in Lean Manufacturing Implementation 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, allowing them to self-manage their study time.

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

tech 22 | Structure and Content

Module 1. Continuous flow: Process Design for smooth and continuous workflows							
1.1. 1.1.1. 1.1.2. 1.1.3.	Continuous Flow Flow Creation in the Toyota Production System The Fourteen Principles of the Toyota Way Culture Total Flow Management, the union of Flow Creation and Pull Flow System	1.2.1.	Processes Typology of industrial processes Apartments vs. Processes vs. Flows Process integration	1.3. 1.3.1. 1.3.2. 1.3.3.	Flows The different types of flows: Materials, Equipment, People and Information Job-shop vs. Flow-shop Turbulent flows vs. Linear flows	1.4.2.	Machines, Equipment and Lines Hardware Reliability as an Essential Element for Flow Creation Jidoka philosophy as an essential element in Flow Creation Monument machine vs. Lean Machine
1.5. 1.5.1. 1.5.2. 1.5.3.	Materials Traditional plant layout vs. Lean plant layout PFEP (Plan-For-Each-Part) Batch production vs. One-piece-flow (Continuous flow)	1.6. 1.6.1. 1.6.2. 1.6.3.	Person The Internal Customer, concept in a lean environment The role of a lean manager The role of a lean operator	1.7. 1.7.1. 1.7.2. 1.7.3.	Information Enterprise Resource Planning System (ERP) Information systems specific to the industrial environment Dashboard, as part of the Daily Management System	1.8. 1.8.1. 1.8.2. 1.8.3.	Lean Flow System Muda expulsion in the production process The Autonomous Cell as a lean paradigm Lean support tools: 5S, Visual Management, SMED
1.9. 1.9.1. 1.9.2. 1.9.3.	Flow Creation application examples Example of implementation in the automotive sector Example of application in the metallurgical sector Example of use in the food sector	1.10.1	Creation of Flow: Design, Implementation and Improvement of Production Processes. Practical Application . Design for flow creation . Implementation of continuous flow				

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

Module 2. Evolution of production organization in a Lean system

- 2.1. The organization of production in a Lean system
- 2.1.1. The Organization of Production. Key Concepts
- 2.1.2. Company Structure and Organization
- 2.1.3. Production systems and work organization
- 2.2. Organizational differences between a traditional production system and a Lean system
- 2.2.1. Types of organizational structure
- 2.2.2. Organizational differences between a traditional system and a Lean system
- 2.2.3. Organizational advantages of the Lean system
- 2.3. Concept of "Work Cells" and their impact on efficiency and continuous improvement
- 2.3.1. Advantages of "Work Cells"
- 2.3.2. Structure/ Types of "Work Cells"
- 2.3.3. Management routines "Work Cells" to impact efficiency and continuous improvement
- 2.4. Implementation of "Continuous Improvement Teams" (Kaizen Teams) to ensure a focus on continuous improvement and problem solving
- 2.4.1. Incorporation of the Kaizen Teams Concept in the organization
- 2.4.2. Activities and methodology
- 2.4.3. Kaizen Teams Roles and Responsibilities

- 2.5. Importance of "Autonomy and Accountability" in the evolution towards a lean system and the improvement of efficiency and quality
- 2.5.1. Self-managed and agile teams as a key to organizational evolution
- 2.5.2. The development of people as an added value to the Lean organization
- 2.5.3. Structure for leading "Autonomy and accountability" towards a Lean system

- 2.6. Use of Standard Work to standardize processes and encourage continuous improvement
- 2.6.1. Standard Work. Key Elements
- 2.6.2. Benefits of Standard Work as an object of continuous improvement
- 2.6.3. Implementation of Standard Work in organizations
- 2.7. Systems for promoting polyvalence and training in lean organizations: The polyvalence matrix
- 2.7.1. Polyvalence Promotion and Training Systems in Lean Organizations: The Polyvalence Matrix
- 2.7.2. Advantages of a multipurpose system
- 2.7.3. Implementation of the polyvalence promotion system
- 2.8. Evolution of production organization through waste elimination and continuous improvement
- 2.8.1. Analysis of non-value-adding activities as a basic Lean practice
- 2.8.2. Waste elimination/reduction strategy
- 2.8.3. Implementing a waste elimination/ reduction model

- 2.9. Implementation of Work Cells and continuous improvement groups in different industries. Practical Examples
- 2.9.1. Implementation of Work Cells in the Automotive Sector
- 2.9.2. Implementation of work cells in the
- 2.9.3. Implementation of Work Cells in the Food Sector
- 2.10. Importance of the evolution of the production organization towards a Lean system
- 2.10.1. Main aspects in the evolution towards a Lean system
- 2.10.2. Improved productivity and production organization
- 2.10.3. Utility of the Lean System for the evolution of the production organization

the Lean philosophy

SMART objectives

3.9.1. Definition of medium and long term

3.9.2. Definition of key indicators to be followed 3.9.3. Follow-up and communication of progress

Module 3. Lean implementation: Strategies and best practices for implementing Lean Manufacturing in an organization 3.2. Analysis of the current state 3.3. Selection of a multidisciplinary 3.1. Lean implementation. 3.4. Definition and establishment of **Project Start** of the company's processes: work team to lead the Lean clear and measurable objectives for the implementation of the Lean Evaluation and identification philosophy implementation project 3.1.1. Vision and reasons for change 3.1.2. Definition of the action framework of areas for improvement and in the company philosophy in the company and objectives opportunities when implementing 3.3.1. Identification of necessary skills and 3.4.1. Definition of indicators 3.1.3. Selection of the initial project team competencies the Lean philosophy 3.4.2. Measurement of Indicators 3.1.4. Definition of the Project Charter 3.3.2. Selection of persons 3.4.3. Definition of goals to be achieved at 3.2.1. Identification of key processes 333 Formation of the Kaizen Teams different horizons 3.2.2. Analysis of the current state of the organization and processes 3.2.3. Technical Analysis/Current culture and main management systems 3.5. Planning and development of 3.6. Formation of the work team: 3.7. Selection of the Pilots to be 3.8. Development and Implementation the project to implement the Training in Lean methodology for developed at the beginning of Pilots and Ouick Wins Lean philosophy in the company. the selected work team and other 3.7.1. Criteria for selection of pilot scopes 3.8.1. Development of a detailed plan to Allocation of resources and company employees 3.7.2. Criteria for selection of persons to implement Lean in the selected be involved who do not belong to the pilot processes execution deadlines 3.6.1. Assessment of the knowledge/capabilities of promoter's team 3.8.2. Implementation of Quick Wins. Quick Wins 3.5.1. Scope Definition the implementation team 3.7.3. Initial evaluation before starting the pilots Identification and Execution: Improvements 3.6.2. Design of the training plan 3.5.2. Definition of actions to be carried out and to be implemented in the short term in the 3.6.3. Development of the training plan resources required pilot processes 3.5.3. Definition of the calendar 3.8.3. Continuous monitoring and adjustment of pilots to measure results and make adjustments as needed 3.9. Establishment of global 3.10. Development of a plan to performance indicators: Definition extend the Lean philosophy to of indicators and key performance the rest of the organization indicators (KPIs) to measure the 3.10.1. Identification of extension areas: criteria success of the implementation of 3.10.2. Establishment of the extension plan: pace

and resources

and communication

3.10.3. Project implementation, monitoring



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.





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.

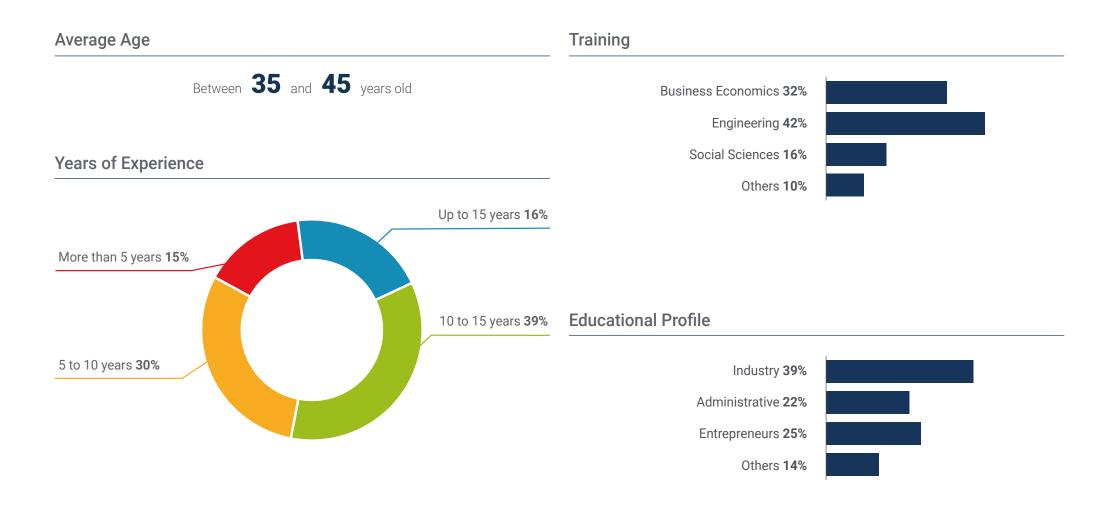


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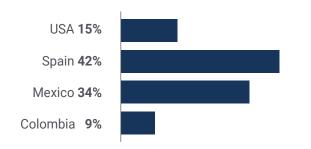




tech 36 | Our Students' Profiles



Geographical Distribution





Letizia Urquijo

Director of Corporate Lean Manufacturing

"Thanks to this program I have been able to correctly implement the Lean system in my organization and achieve progress not only in production, but also in my position within the organization. An opportunity I have been able to have after completing this program"





tech 40 | Course Management

Management



Dr. Luis Jover Miravitlles

- 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

Dr. Josep Antoni Aguilar

- 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

Dr. Gustavo Vitriago Pérez

- Software Implementation Consultant at Software Tecnic Tecnocim
- Senior Consultant en ACTIO Consulting Group
- Lean Six Sigma Consultant
- Senior Consultant in Business Performance Consulting
- Continuous Improvement Specialist & Auditor at Esteban Ikeda/JC
- Bachelor of Science in Naval Sciences Naval Administration and Logistics
- Master's Degree in Integral Logistics by Johnson Controls International
- Master in Automated Production and Robotics by the Polytechnic University of Catalunya
- Black Belt Certification Training Six Sigma by Kanban University





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

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

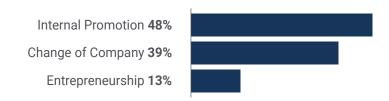
Achieve your management goals by abandoning obsolete production systems.

Create kaizen workshop events and enable your team to make quick and relevant changes.

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 Software Quality Implementation** 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 certificate 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 Lean Manufacturing Implementation

Official No of Hours: 450 h.



^{*}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.



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