

# Postgraduate Certificate Industry 4.0 Services and Solutions



## Postgraduate Certificate Industry 4.0 Services and Solutions

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/artificial-intelligence/postgraduate-certificate/industry-4-0-services-solutions](http://www.techtute.com/us/artificial-intelligence/postgraduate-certificate/industry-4-0-services-solutions)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Artificial Intelligence brings with it a great opportunity for companies in different industrial sectors, as well as for the economy in general terms. For example, in the secondary sector, its tools serve to optimize both the planning and management of the supply chain (from the acquisition of raw materials to the delivery of final products). Given their importance, engineers need to be constantly updated on developments in the field of Industry Sector Services and Solutions. To contribute to this work, TECH presents a program that will bring the most innovative solutions provided by Industry 4.0 to companies. In addition, it is taught in a convenient and flexible 100% online format.





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*You will identify business opportunities in the different industrial sectors and implement cutting-edge technological solutions thanks to this 100% online Postgraduate Certificate"*

Industry Services and Solutions play a key role in optimizing efficiency, competitiveness and even sustainability in institutions. The implementation in the industry of tools such as simulation platforms, predictive maintenance tools or data analytics serve organizations to improve their operational efficiency. Moreover, this digital transformation is indispensable for companies to adapt quickly to changing market needs as well as customer demands. In this way, businesses offer fully customized products or services, resulting in a significant increase in their competitiveness and innovation.

Given this scenario, TECH designs a Postgraduate Certificate in Services and Sectorial Solutions in Industry 4.0. Developed by experts in this field, the academic itinerary will examine in depth the factors of business digitization and will offer students a useful roadmap to optimally implement it. The syllabus will also delve into the most innovative solutions in each industrial sector, so that graduates can take advantage of the multiple professional opportunities they offer. In line with this, the learning materials will emphasize the relevance of Smart Factory to improve the quality of manufacturing processes through the integration of advanced digital technologies.

Moreover, it is notable that the approach of this program reinforces its innovative character. Along these lines, TECH offers a 100% online educational environment, tailored to the needs of busy professionals seeking to take a quality leap in their careers. In addition, through the Relearning, methodology, based on the repetition of key concepts to fix knowledge and facilitate learning, flexibility is combined with a robust pedagogical approach. On the other hand, access to an extensive library of multimedia resources is guaranteed.

This **Postgraduate Certificate in Industry 4.0 Services and Solutions** contains the most complete and up-to-date program on the market. The most important features include:

- ♦ The development of case studies presented by experts in Digital Transformation and Industry 4.0
- ♦ The graphic, schematic, and practical contents with which they are created, provide practical information on the 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



*You will enrich your daily practice by incorporating the most modern business strategies of Industry 4.0"*

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*Through the Relearning methodology, you will integrate all the concepts effectively to successfully achieve the results you are looking for”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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 education programmed to learn 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 students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will drive innovation in all companies, to develop innovative solutions and increase their competitiveness in the sector.*

*You will master each of the key steps for the digitization of processes, becoming a valuable asset in your company.*



# 02

# Objectives

With this Postgraduate Certificate, graduates will develop both technical and technological competencies to implement and manage innovative solutions in each industrial sector. To do so, they will be up to date with the latest trends occurring in Industry 4.0 and Artificial Intelligence. This will enable professionals to master the digitization procedures of organizations, as well as automation processes to lead technological efficiency. At the same time, they will have at their fingertips various tools to take advantage of market opportunities in multiple industries, ranging from manufacturing to logistics or telecommunications.



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*A comprehensive update on Smart Farms through a curriculum designed by real experts in Sector Solutions”*



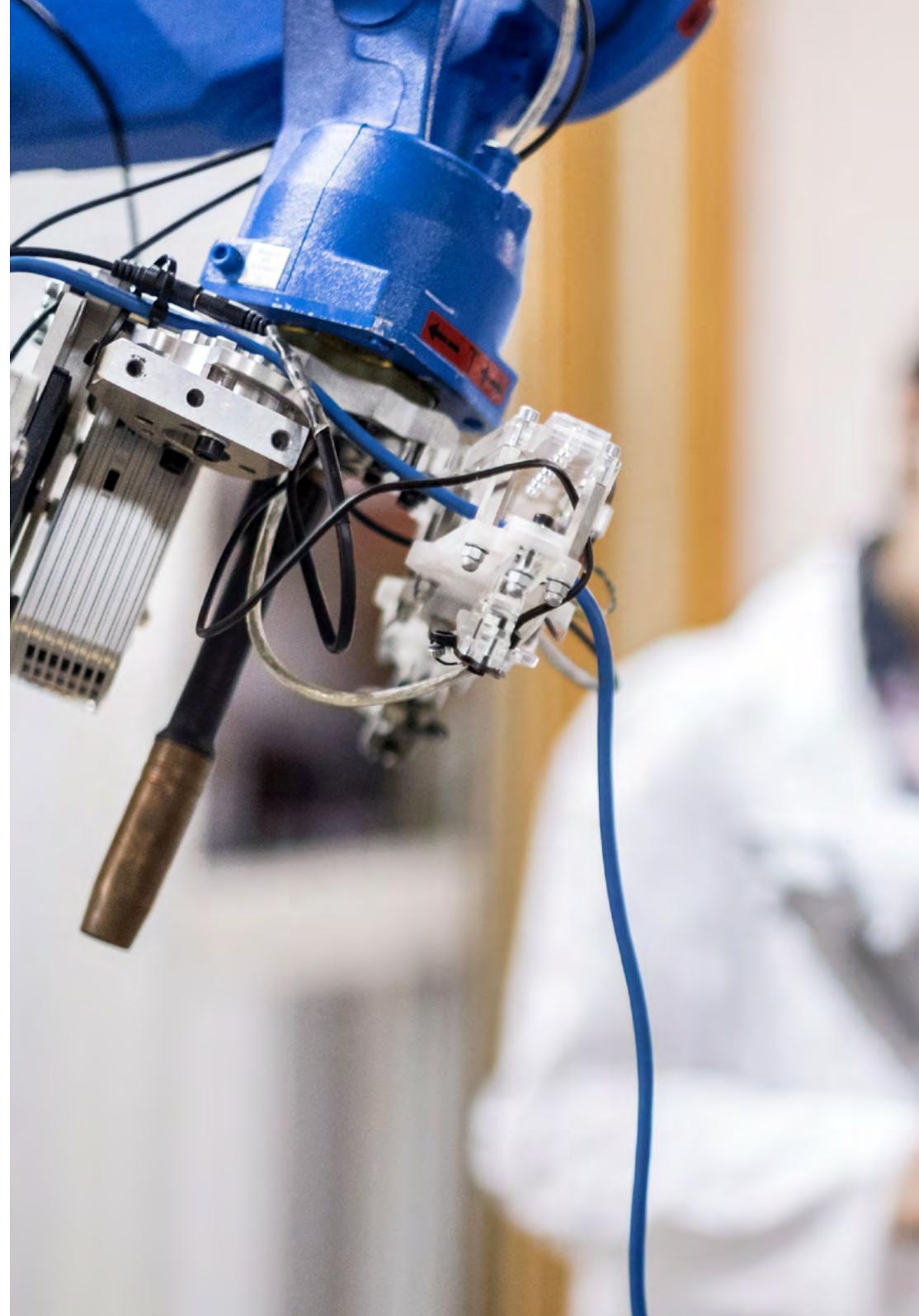
## General Objectives

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- ◆ Conduct a comprehensive analysis of the profound transformation and radical paradigm shift being experienced in the current global digitalization process
- ◆ Provide in-depth knowledge and the necessary technological tools to face and lead the technological leap and the challenges currently present in companies
- ◆ Mastering the digitalization procedures of companies and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency
- ◆ Leading Digital Change



*You will analyze real case studies that will increase your competencies in business digitalization processes. You will lead the technological change!"*





## Specific Objectives

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- Conduct an exhaustive analysis of the practical application that emerging technologies are having in the different economic sectors and in the value chain of their main industries
- In-depth knowledge of the primary and secondary economic sectors, as well as the technological impact they are experiencing
- Find out how technologies are revolutionizing the agricultural, livestock, industrial, energy and construction sectors
- Identify the needs and demands of customers in the industrial sector, as well as detect opportunities for innovation and improvement in existing products and services

# 03

# Course Management

TECH's main premise is to provide quality education to students. Therefore, TECH has rigorously selected the teaching staff that makes up this Postgraduate Certificate. In this way, it has brought together a team full of professionals in the field of Digital Transformation and Industry 4.0. These experts are distinguished by their exhaustive knowledge of Artificial Intelligence, at the same time that they have years of work experience behind them. Undoubtedly, this is an endorsement for students, who will enjoy an immersive educational experience with references in this important technological field.





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*You will enjoy top-level learning  
by real experts in Industry 4.0  
and Artificial Intelligence”*

## Management



### Dr. Segovia Escobar, Pablo

- ♦ Chief Executive of the Defense Sector in the Company TecnoBit of the Oesía Group
- ♦ Corporate Project Director Indra
- ♦ Master's Degree in Companies Administration and Management by the National University of Distance Education
- ♦ Postgraduate in Strategic Management Function
- ♦ Member of: Spanish Association of People with High Intellectual Quotient



### Dr. Diezma López, Pedro

- ♦ Chief Innovation Officer and CEO of Zerintia Technologies
- ♦ Founder of the technology company Acuilae
- ♦ Member of the Kebala Group for business incubation and promotion
- ♦ Consultant for technology companies such as Endesa, Airbus or Telefónica
- ♦ Wearable "Best Initiative" Award in eHealth 2017 and "Best Technological "Solution" 2018 for occupational safety



# 04

## Structure and Content

Thanks to this Postgraduate Certificate, graduates will have a solid understanding of the most innovative technological solutions in Artificial Intelligence. The course will delve into Industry 4.0 and its business strategies, providing students with a roadmap for business digitalization. Likewise, the agenda will delve into the different innovative solutions in different sectors. In this way, professionals will be able to implement them in their various projects, to ensure both efficiency and cutting edge. The program will also equip experts with the most advanced resources to successfully face the challenges that will arise during the digitization stage.



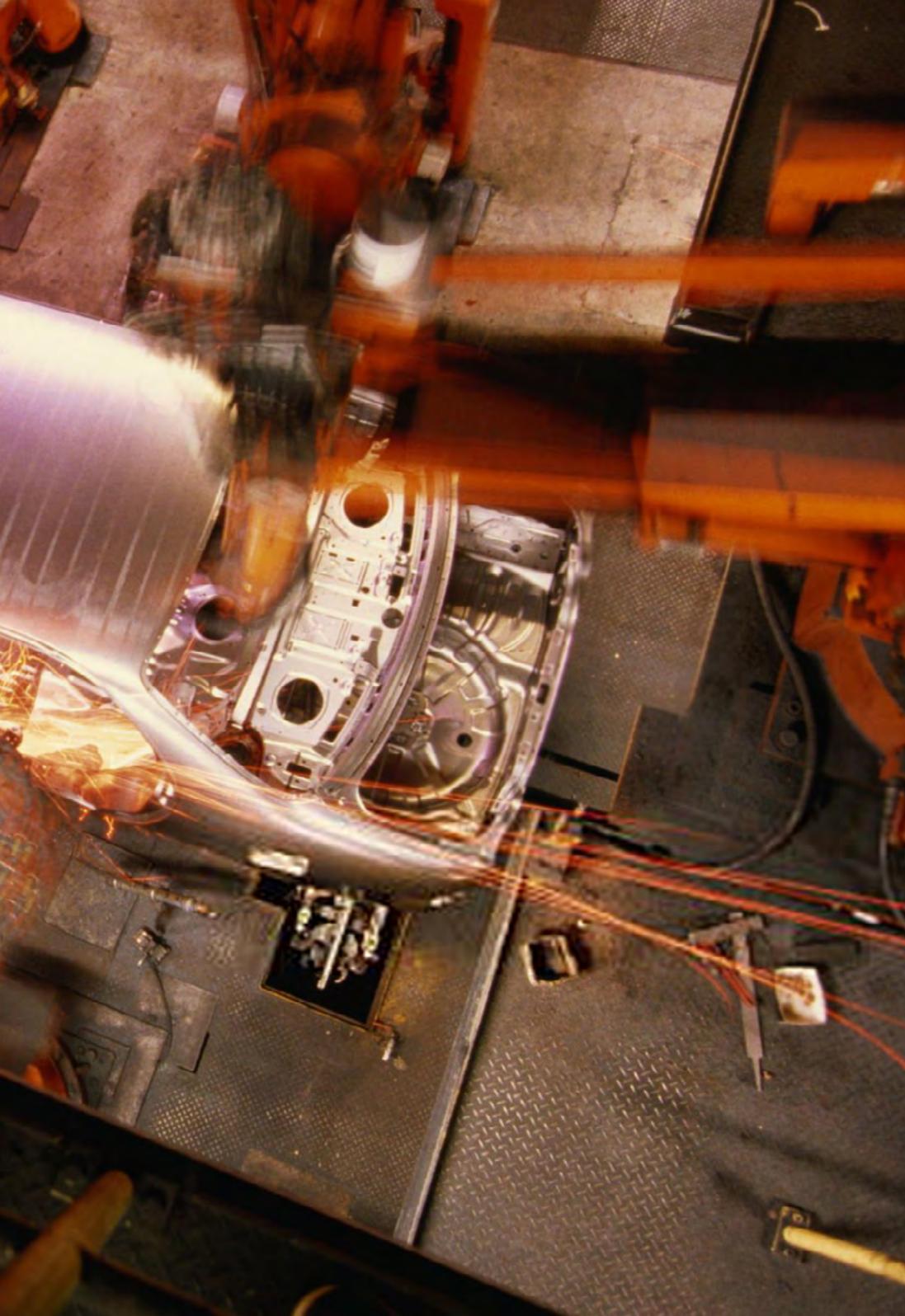
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*A library of learning resources will be available 24 hours a day, that stand out for their high quality"*

## Module 1. Industry 4.0- Services and Solutions I

- 1.1. Industry 4.0 and Business Strategies
  - 1.1.1. Factors of Business Digitalization
  - 1.1.2. Roadmap for Business Digitalization
- 1.2. Digitalization of Processes and the Value Chain
  - 1.2.1. Value Chain
  - 1.2.2. Key Steps in the Digitization of Processes
- 1.3. Sector Solutions Primary Sector
  - 1.3.1. The Primary Economic Sector
  - 1.3.2. Characteristics of Each Subsector
- 1.4. Digitization of the Primary Sector: Smart Farms
  - 1.4.1. Main Characteristics
  - 1.4.2. Keys Factors of Digitization
- 1.5. Digitization of the Primary Sector: Digital and Intelligent Agriculture
  - 1.5.1. Main Characteristics
  - 1.5.2. Keys Factors of Digitization
- 1.6. Sector Solutions Secondary Sector
  - 1.6.1. The Secondary Economic Sector
  - 1.6.2. Characteristics of Each Subsector
- 1.7. Digitization of the Secondary Sector: Smart Factory
  - 1.7.1. Main Characteristics
  - 1.7.2. Keys Factors of Digitization
- 1.8. Digitization of the Secondary Sector: Energy
  - 1.8.1. Main Characteristics
  - 1.8.2. Keys Factors of Digitization
- 1.9. Digitization of the Secondary Sector: Construction
  - 1.9.1. Main Characteristics
  - 1.9.2. Keys Factors of Digitization
- 1.10. Digitization of the Secondary Sector: Mining
  - 1.10.1. Main Characteristics
  - 1.10.2. Keys Factors of Digitization





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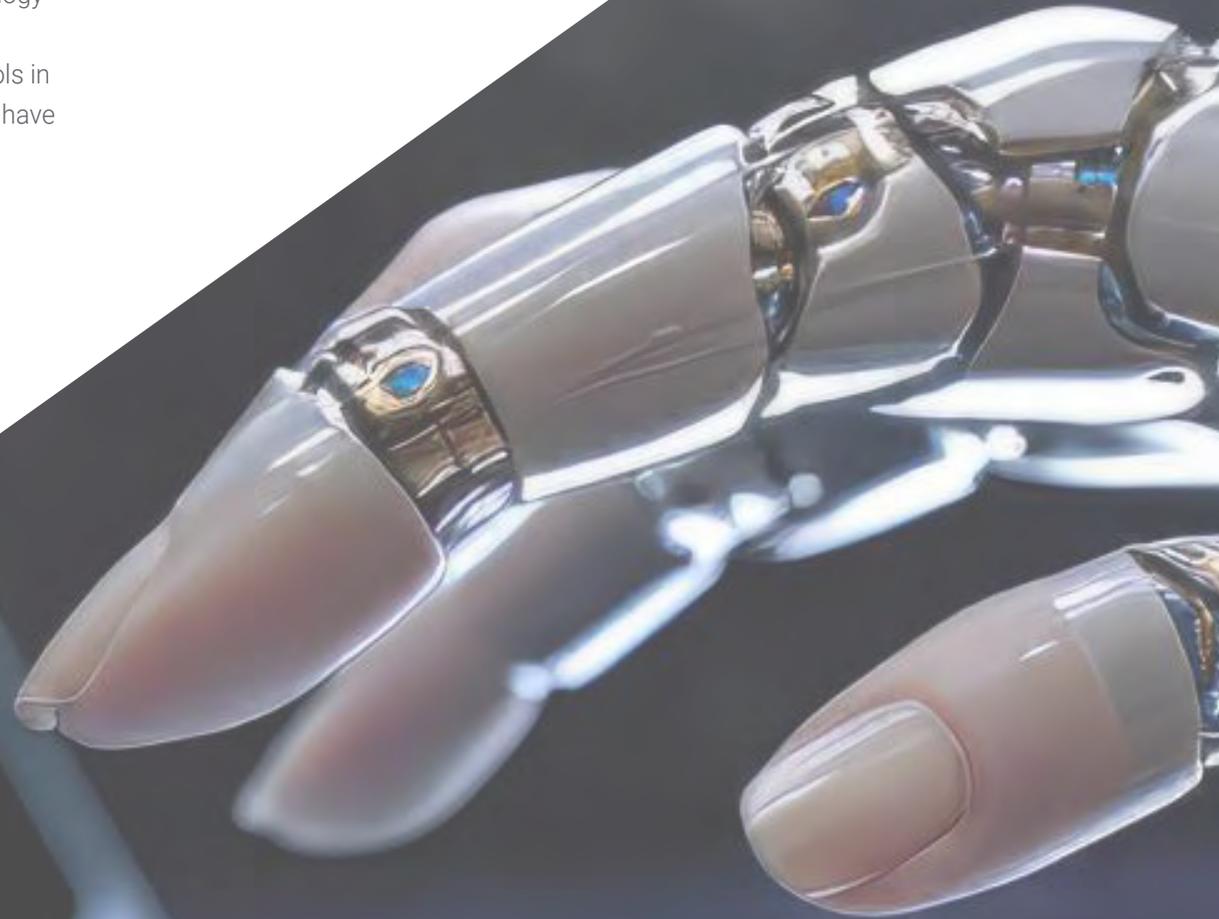
*With the most highly valued study methods in online teaching, this program will allow you to make unstoppable progress in your professional development”*

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.

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



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

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

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Relearning Methodology

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

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

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



### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



06

# Certificate

The Postgraduate Certificate in Industry 4.0 Services and Solutions guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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*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 Industry 4.0 Services and Solutions** 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 Industry 4.0 Services and Solutions**

ECTS: **6**

Official N° of Hours: **150 h.**



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** global  
university

personalized service innovation

knowledge present  
online training

development language

virtual classroom

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- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

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