

# Postgraduate Diploma Supply Chain and Intermodal Transport





## Postgraduate Diploma Supply Chain and Intermodal Transport

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

Website: [www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-supply-chain-intermodal-transport](http://www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-supply-chain-intermodal-transport)

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# 01

# Introduction

In a context of globalization, port trade logistics has become a fundamental pillar to guarantee efficiency in the supply chain. Therefore, adaptability and mastery in the use of the latest technologies have become essential in Port Management. In this environment, the maritime sector is experiencing significant growth, requiring highly specialized professionals in Intermodal Transport and Supply Chain. Therefore, this advanced program delves into the use of emerging technologies such as Blockchain and Machine Learning. With its flexibility and accessibility, this 100% online program offers students an unique opportunity for professional growth backed by leading industry experts.





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*Transform your professional future with our 100% online program that will help you become a logistics expert from the comfort of your own home”*

In a context marked by globalization, port trade logistics has emerged as an essential element to ensure efficiency in the supply chain and address a number of evolving challenges. These can range from economic crises to health crises to traffic and personnel management challenges. Therefore, effectiveness in the management of port operations is now associated with the ability to adapt to these dynamic situations, supported by the mastery of the latest technologies.

In response to this reality, the maritime sector is in constant growth and demands highly specialized professionals with an up to date vision in Supply Chain and Intermodal Transport. It is in this context where this online program is presented with a duration of 450 teaching hours. This program has been designed by a team of professionals with more than two decades of experience in the field.

This qualification will delve into the use of new technologies applied to logistics such as Blockchain and Machine Learning. New tools with which the challenges that the sector will face in the future will be faced. However, emphasis will also be placed on the use of logistics platforms as an integrating element of the intermodal chain.

This program integrates the Relearning system, a methodology that allows acquiring new knowledge in a more efficient way, eliminating long hours of study and memorization. The flexibility and accessibility of this program allow students to access resources from any digital device with an Internet connection, whether it is a tablet, cell phone or computer. This educational approach provides students with a unique opportunity for professional growth, supported by industry-leading experts, and aligns with the demands of an ever-changing world.

This **Postgraduate Diploma in Supply Chain and Intermodal Transport** 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 Supply Chain and Intermodal Transport
- ♦ The graphic, schematic and eminently practical contents of the book provide up-to-date and practical information on those disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



*Stand out in a sector in the midst of a process of change in which endless opportunities are opening up”*

“

*Address global challenges in port logistics with this Postgraduate Diploma in Supply Chain and Intermodal Transport, adapted to a changing industry”*

*Explore emerging technologies in logistics, such as Blockchain and Machine Learning, to successfully meet the challenges of the future in the supply chain.*

*Take a step toward a successful career in port logistics. This program gives you the tools to overcome global challenges and excel in the growing maritime sector.*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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.



# 02 Objectives

Graduates who complete this Postgraduate Diploma in Supply Chain and Intermodal Transport will develop a high level of competence that will enable them to implement the most advanced technologies to optimize the operation of intermodal transport infrastructures, as well as to effectively plan material and human resources in this sector. This approach is based on the combination of theory and practice, and benefits from the experience of an outstanding teaching team with a deep knowledge of the port environment at an international level. This educational proposal provides an unique opportunity for professional growth, guided by true experts in the field.





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*Boost your career in the field of Intermodal Transport and differentiate yourself from other professionals in the sector”*



## General Objectives

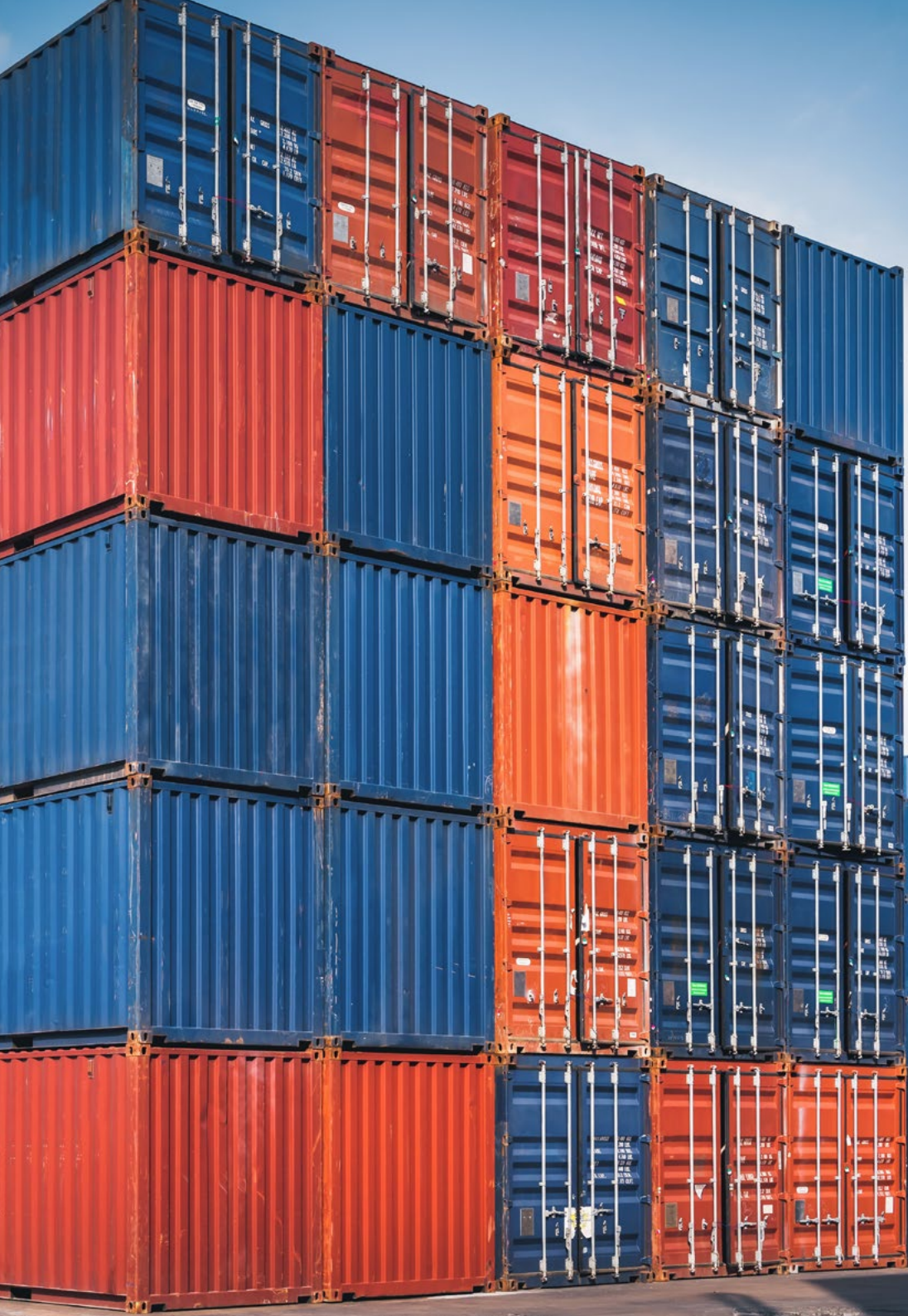
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- ◆ Conceptualize logistics and place it in the current economic environment
- ◆ Conceptually define the processes that compose it and give rise to the different types of logistics
- ◆ Understand what each of these processes consists of and the purpose for which they were conceived
- ◆ Analyze the general composition of today's intermodal chains
- ◆ Update the student's knowledge in the field of multimodal transport
- ◆ Substantiate the importance of maritime transport in globalization
- ◆ Analyze multimodality and its role in the logistics chain
- ◆ Examine the main maritime traffics and transport vessels
- ◆ Delve into the main maritime traffics
- ◆ Specify the international legislation in maritime transport



*It's time to achieve your goals with the best specialists in the sector"*





## Specific Objectives

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### Module 1. Logistics and logistics operators

- ◆ Identify the different types of logistics and the function(s) they perform in relation to the final customer
- ◆ Theoretically develop the different logistic processes and determine their practical purpose
- ◆ Analyze the figure of the logistics operator, from a general point of view, and analyze the different typologies of operators that design and execute logistics processes
- ◆ Determine each of the services offered by logistics operators depending on their typology

### Module 2. Multimodal transport, intermodality and logistics platforms

- ◆ Identify each of the actors involved in the intermodal chain and define their roles
- ◆ Develop the concept, evolution and activities related to intermodal transport
- ◆ Establish the economic and operational impact of multimodality within the supply chain
- ◆ Generate logistics optimization scenarios based on the principles of intermodality

### Module 3. Maritime transportation

- ◆ Determine the cost of maritime transport
- ◆ Specify the different contracts for the operation of the vessel
- ◆ Analyze the freight market
- ◆ Examine emissions and their regulation

# 03

# Course Management

In its commitment to provide excellence in education in an accessible manner, TECH has brought together leading professionals to ensure that students acquire a solid knowledge in the Supply Chain and Intermodal Transportation specialty. The current Postgraduate Diploma has a highly qualified team with extensive experience in the industry, who will provide students with the best tools to develop their skills throughout the program. In this way, students have the necessary guarantee to specialize at an effective level in a sector in constant growth, which will allow them to achieve professional success.





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*With this Postgraduate Diploma you will become one of the most sought-after professionals in the field of logistics and maritime transport with the help of great professionals in the sector”*

## Management



### Dr. López Rodríguez, Armando

- ♦ Head of Technical Advisory Area in the Office of the President of Ports of the State
- ♦ Head of Strategic Planning Area at Ports of the State
- ♦ Project Manager at Ports of the State
- ♦ Head of the Resources and Information and Communications Technology Area at Ports of the State
- ♦ Head of Development Ports of the State
- ♦ Head of Corporate Relations Area at Ports of the State
- ♦ Head of Strategic Planning Area at Ports of the State
- ♦ Head of the Strategic Planning Area at Ports of the State
- ♦ AENOR Associate Professor
- ♦ UBT Associate Professor Lab
- ♦ Telecommunications Engineer from Universidad Politécnica de Madrid
- ♦ Degree in History from the National University of Distance Education (UNED)
- ♦ PhD's Degree in History from the National University of Distance Education (UNED)
- ♦ Master's Degree in Advanced Methods and Techniques of Historical, Artistic and Geographic Research from the National University of Distance Education (UNED)
- ♦ Management Development Program (PDD) from the IESE of the University of Navarra



## Professors

### Mr. Martín Gasull, Emilio

- ♦ Manager at Refrigerated Transport Division at Zanotti Appliance
- ♦ General Manager at HI Logistics Group
- ♦ Regional Director Levante at ERTRANSIT
- ♦ Branch Manager Levante at Agencia Fernández de Sola
- ♦ Intermodal Transport Division Manager at Kuehne & Nagel Spain
- ♦ Maritime Division Manager Spain and Portugal at DHL Global Forwarding
- ♦ Director Intermodal Transport Division at DHL Global Forwarding
- ♦ Regional Technical Director at JF Hillebrand Spain
- ♦ Maritime and Inland Logistics Director at Evergreen Shipping Spain
- ♦ Lecturer in the Master's Degree in Port Management and Intermodal Transport
- ♦ Graduated in Law from the University of Valencia Academic Background
- ♦ Commissioner of Average by the College of Merchant Marine Officers

### Mr. Muriente Núñez, Carlos

- ♦ Naval and Ocean Engineer, ALTEN SPAIN
- ♦ Degree in Naval Architecture, Polytechnic University of Madrid
- ♦ Master's Degree in Naval and Ocean Engineering, Polytechnic University of Madrid
- ♦ Master's Degree in Renewable Energies by TECH, Technological Institute
- ♦ Course on Future in Materials in Industry, Construction and Technology, Polytechnic University of Madrid

# 04

# Structure and Content

The syllabus of the Postgraduate Diploma in Supply Chain and Multimodal Transport is spread over 450 teaching hours, providing advanced knowledge in these disciplines. The theoretical approach is complemented by a wide range of multimedia didactic materials, specialized readings and case studies available in the virtual library. This educational resource platform is available 24/7 from any device with an Internet connection, be it a cell phone, tablet or computer. This pedagogical approach gives students the flexibility needed to access content conveniently and make the most of their learning in supply chain and multimodal transport.







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*A didactic program developed by experts  
in Multimodal Transport that will take you  
to the top in your profession”*

## Module 1. Logistics and logistics operators

- 1.1. Logistics
  - 1.1.1. Logistics, role in the current economic flow
  - 1.1.2. Logistics and Supply Chain. Differences
  - 1.1.3. In-Company Logistics. Importance
- 1.2. Logistics Areas and Types
  - 1.2.1. Logistics Areas
  - 1.2.2. Internal vs. external Logistics
  - 1.2.3. Logistics fundamentals
- 1.3. Logistics Operations
  - 1.3.1. Operations of logistics companies
  - 1.3.2. The logistics process and its elements
  - 1.3.3. Stages of the logistics chain
  - 1.3.4. Problems arising in logistics environments
- 1.4. Logistics adapted to current market needs
  - 1.4.1. Logistics in e-commerce. Distribution Logistics
  - 1.4.2. Reverse Logistics
  - 1.4.3. Logistics Indicators
  - 1.4.4. Current Logistics
- 1.5. New Technologies Applied to Logistics
  - 1.5.1. Robotics and automated warehouses
  - 1.5.2. Process Automation
  - 1.5.3. Information Systems Applied to Logistics
  - 1.5.4. Blockchain and Machine Learning
- 1.6. Logistics of the future
  - 1.6.1. Challenges Faced by Logistics
  - 1.6.2. Green Logistics
  - 1.6.3. New trends in the field of Logistics
- 1.7. Logistics Operators
  - 1.7.1. Global Logistics
  - 1.7.2. Role of the Logistics Operators
  - 1.7.3. Evolution of Logistics Operators up to the Present Day
  - 1.7.4. Logistics operator Requirements





- 1.8. Logistics Operators and the Outsourcing contract
  - 1.8.1. The Outsourcing contract Clauses, SLAS
  - 1.8.2. Services provided by logistics operators
  - 1.8.3. Advantages offered by logistics operators
- 1.9. Logistics Operators Functions and Types
  - 1.9.1. Functions of logistics operators
  - 1.9.2. Party Logistics (PL). Uses
  - 1.9.3. Types of logistics operators Services and Infrastructures
  - 1.9.4. The Future of PL. From 6PL to 10 PL
- 1.10. Freight Forwarder Vs Logistics Operator
  - 1.10.1. Freight forwarder vs. logistics operator. Differences and similarities
  - 1.10.2. Evolution of the Freight Forwarder into a Logistics Operator
  - 1.10.3. The freight forwarder and the PL's system. Bringing services closer together

**Module 2. Multimodal transport, intermodality and logistics platforms**

- 2.1. The Warehouse
  - 2.1.1. Phases of the Logistics activity Role of Warehouse in the Supply Chain
  - 2.1.2. Warehouse activities
  - 2.1.3. Types of Warehouse
  - 2.1.4. Storage alternatives
- 2.2. Logistics Platforms
  - 2.2.1. Warehouse vs Logistics Platforms Differentiating Elements
  - 2.2.2. Types of logistics Platform
  - 2.2.3. Operation of an Logistics Platform Infrastructures, space organization of space and human and mechanical resources
- 2.3. Logistics platforms as an integrating element of the intermodal chain
  - 2.3.1. Types of logistics Platform
  - 2.3.2. Location as a differentiating element of logistics platforms Warehouses HUB
  - 2.3.3. Micro logistics platforms. Urban SLPs
- 2.4. Inland transportation of goods by road
  - 2.4.1. International land freight transport. Primary infrastructures and international legal framework
  - 2.4.2. Types of road freight transport
  - 2.4.3. Key elements for the management of road transport companies
  - 2.4.4. Digital transformation of road transport companies. Management Systems

- 2.5. Rail freight transport
  - 2.5.1. Rail transport Situation of international freight rail networks international freight rail networks
  - 2.5.2. Railway operators
  - 2.5.3. Types of Rail transport
- 2.6. Maritime freight transport
  - 2.6.1. International regulatory agencies
  - 2.6.2. Relevant legislation
  - 2.6.3. Long distance maritime transportation
  - 2.6.4. Short sea shipping and freeways of the sea
  - 2.6.5. Freight transport by inland waterways
  - 2.6.6. Maritime transportation Key Aspects
- 2.7. Air freight transport
  - 2.7.1. International regulatory agencies
  - 2.7.2. International Legal Framework
  - 2.7.3. Essential infrastructures
  - 2.7.4. Airplanes Typology
  - 2.7.5. Air transport Key Aspects
- 2.8. Capillary distribution of goods
  - 2.8.1. Capillary distribution, the final link in the logistics chain
  - 2.8.2. Capillary distribution operation
  - 2.8.3. Last Mile Logistics. Operation
- 2.9. Multimodal and combined transportation
  - 2.9.1. Multimodal and combined transportation
  - 2.9.2. Multimodality Vs Intermodality
  - 2.9.3. Role of multimodal transport operators (MTOs)
- 2.10. Intermodal transport
  - 2.10.1. Intermodal transport
  - 2.10.2. Types of Intermodality
  - 2.10.3. Role of Warehouse in intermodality. The crossdocking
  - 2.10.4. The operator in the intermodal transport
  - 2.10.5. Intermodal Transportation Systems
  - 2.10.6. Intermodal transport Advantages, problems and Challenges



**Module 3. Maritime transportation**

- 3.1. Maritime transportation and International Trade
  - 3.1.1. Maritime transportation
  - 3.1.2. International Trade
  - 3.1.3. Maritime traffics
  - 3.1.4. TRAMP traffic and regular liners
- 3.2. Types of Ships in Maritime Transportation
  - 3.2.1. Types of Ships in Maritime Transportation according to their cargo
  - 3.2.2. Evolution of the ships in maritime transport
  - 3.2.3. Container
    - 3.2.3.1. Types of maritime containers
- 3.3. Maritime Transportation Market
  - 3.3.1. Maritime Transportation Market
  - 3.3.2. World fleet
  - 3.3.3. World Maritime Transportation Requirement
- 3.4. Maritime Transportation Costs
  - 3.4.1. Cost distribution
  - 3.4.2. Fixed Costs
  - 3.4.3. Variable Costs
  - 3.4.4. Loading/unloading costs
  - 3.4.5. Factors Influencing Costs
- 3.5. Maritime traffics
  - 3.5.1. Petroleum traffic
  - 3.5.2. Bulk solids traffic
  - 3.5.3. General cargo
- 3.6. Maritime Law
  - 3.6.1. Maritime privileges
  - 3.6.2. Ship mortgage
  - 3.6.3. International maritime transport regulations and conventions
- 3.7. Contracts for the Operation of the Ship
  - 3.7.1. Economic operation of the ship
  - 3.7.2. Bareboat Lease
  - 3.7.3. Chartering
  - 3.7.4. Passenger contract
- 3.8. Freight Market
  - 3.8.1. Freight Market Evolution
  - 3.8.2. Journalism
  - 3.8.3. Supply/ Demand
- 3.9. Accident and Marine Insurance
  - 3.9.1. Accidents in Navigation
  - 3.9.2. Types of Breakdowns
  - 3.9.3. Marine Insurance
- 3.10. Emissions International Regulation
  - 3.10.1. Maritime transportation emissions
  - 3.10.2. International Regulation
  - 3.10.3. Form of Fulfillment of Regulations
  - 3.10.4. Reduction of CO2 emissions



*A syllabus designed to take  
your career to the next level”*

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

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



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





*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 is the most widely used learning system in the best faculties in the world. 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 program, the studies 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 8 different teaching elements in each lesson.

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

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

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

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



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

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

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

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

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



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



### Study Material

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

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



### Classes

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

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



### Practising Skills and Abilities

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



### Additional Reading

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





**Case Studies**

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



**Interactive Summaries**

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

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



**Testing & Retesting**

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



06

# Certificate

The Postgraduate Diploma in Supply Chain and Intermodal Transport guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Diploma in Supply Chain and Intermodal Transport** contains the most complete and up-to-date program on the market.

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

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

Title: **Postgraduate Diploma in Supply Chain and Intermodal Transport**

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.



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

**tech** technological  
university

## Postgraduate Diploma Supply Chain and Intermodal Transport

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

# Postgraduate Diploma Supply Chain and Intermodal Transport

