

# Postgraduate Certificate Airport Maintenance





## Postgraduate Certificate Airport Maintenance

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

Website: [www.techtute.com/us/engineering/postgraduate-certificate/airport-maintenance](http://www.techtute.com/us/engineering/postgraduate-certificate/airport-maintenance)

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# 01

# Introduction

Airport infrastructure maintenance plans are part of a system that evolves in line with the evolution of the other areas that make up an airport. This means that practically every year these plans are renewed and are broken down into chapters that are necessary to contemplate and measure. Normally a maintenance plan is based on the regulations that regulate it and this online training goes deeper into these prescriptions on signaling, visual aids, high voltage equipment and other important aspects of such a plan. A study plan in online format to make it easier for students to reconcile it with other personal and professional projects, who will have at their disposal all the material and teaching resources in the virtual classroom.







“

*You will be able to take this program from the comfort of your home thanks to its 100% online format"*

This Postgraduate Certificate provides the professional with the contents required when dealing with an airport maintenance plan. It develops the regulations that govern it and analyzes the globality of the maintenance plan. In addition, it analyzes the chapters that are necessary to contemplate in it and the indicators that help to measure them.

The educational plan makes a tour and begins by delving into the regulatory maintenance regulations, as well as the types of maintenance that can be considered. It also delves into the structure of the maintenance plan, its indicators and records, and must contain mechanisms for continuous improvement.

Likewise, this Postgraduate Certificate in Airport Maintenance develops in its content the precautions and regulations related to visual aids, signaling, high voltage equipment, system tests, pavements, non-paved surfaces, fencing and other elements subject to regulatory maintenance. Finally, non-aeronautical maintenance and the maintenance of equipment, mainly vehicles, are covered through the airport ITV.

All this is presented through multimedia content, complementary readings and exercises based on real cases. It also includes the Relearning methodology, based on practical learning, leaving behind long hours of study and optimizing time. In addition, being a 100% online qualification, the professional in the field will only require a device with internet connection from which they will be able to take the program at their convenience.

This **Postgraduate Certificate in Airport Maintenance** 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 airport maintenance
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the 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



*Develop a competitive advantage  
in control and knowledge of  
Airport Maintenance"*

“

*This Postgraduate Certificate allows you to combine your career development with this program. What are you waiting for? Enroll now!"*

The program's teaching staff includes professionals from sector 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.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that arise throughout the training. To do so, he/she will be assisted by an innovative interactive video system created by recognized experts.

*Get up to date with the latest Airport Maintenance updates to get a jump start on your career.*

*Download the syllabus to your trusted device and review it as often as necessary to reinforce your knowledge.*

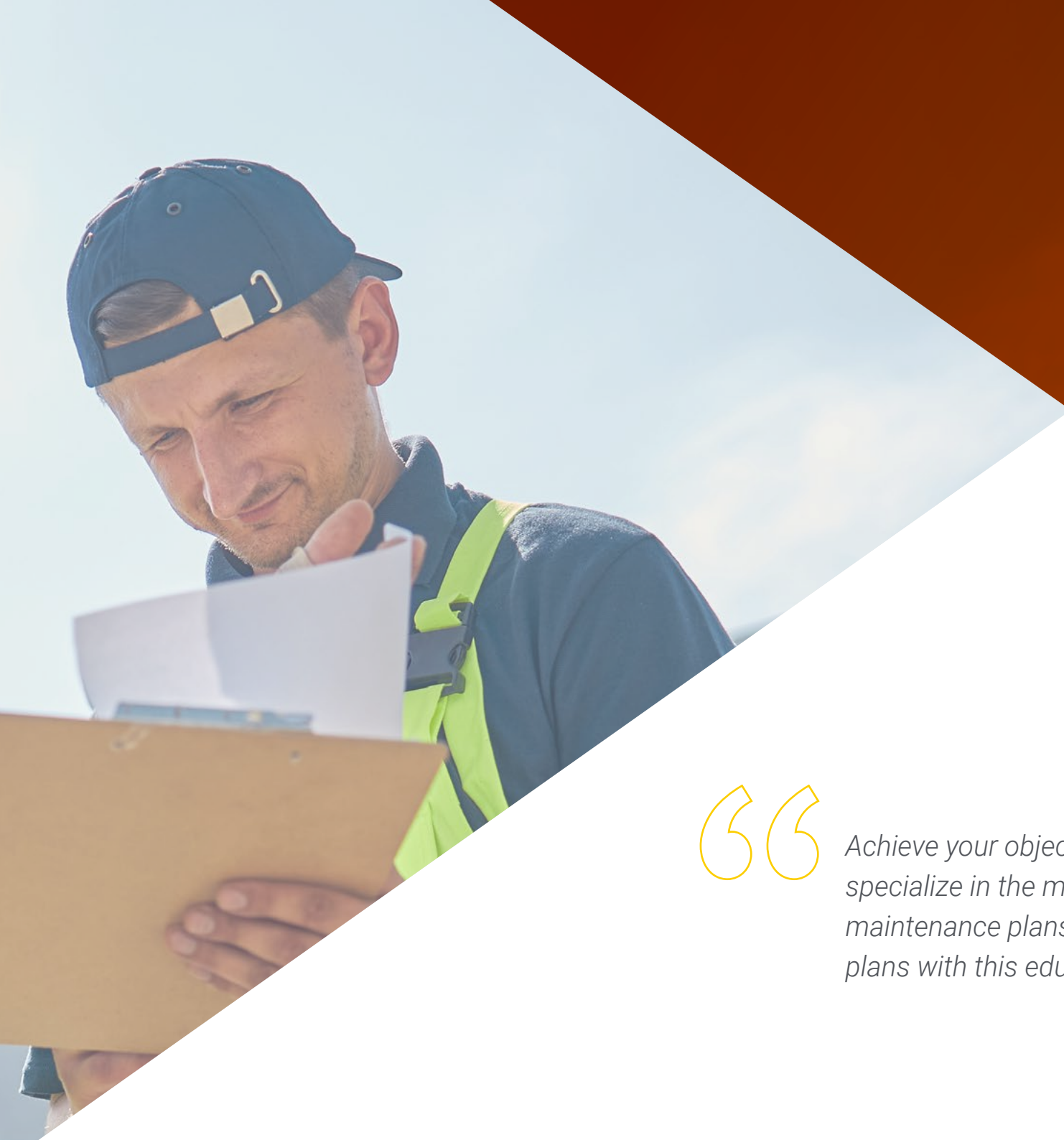


# 02 Objectives

The objective of this Postgraduate Certificate is clear: Provide the user with the knowledge needed to master airport maintenance plans. For this purpose, you will have the most current and practical content, with which you will have at your disposal a variety of lists and regulatory documents, in which the most updated information on this field is available.







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*Achieve your objective with this program: specialize in the management of airport maintenance plans with the airport maintenance plans with this educational program"*



## General Objectives

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- ◆ Provide the professional with the specific and necessary knowledge to perform with a critical and formed opinion in any phase of planning, design, construction or operation of the airport
- ◆ Determine the problems of airport design and look for solutions adjusted to the airport's needs
- ◆ Master the main constraints involved in an airport project
- ◆ Acquire a specialized approach and be able to monitor the management of any airport department
- ◆ Apply the latest techniques used in the industry today
- ◆ Outline the new trends that airports plan to implement in the post-COVID era
- ◆ Deepen the knowledge of the different critical and common airside infrastructures and their design





## Specific Objectives

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- ◆ Master the regulatory requirements to the airport maintenance plan
- ◆ Determine the structure, scope and periodic review of the maintenance plan
- ◆ Address visual aids maintenance requirements
- ◆ Identify signage maintenance requirements
- ◆ Analyze maintenance requirements for low-voltage electrical systems
- ◆ Specify maintenance requirements for high-voltage electrical systems
- ◆ Identify system testing protocols
- ◆ Specify maintenance requirements for motion area surfaces
- ◆ Address maintenance requirements for fencing and other features
- ◆ Delve into the maintenance requirements of other equipment

“

*Achieve your objectives thanks to this fully updated content on airport runway signage”*



03

# Course Management

This program has been designed thanks to the expertise of a select teaching staff, professionals of the highest level interested in providing the most current content and at the forefront of the airport management sector. Therefore, the student will be able to learn to manage and know the regulations of the different areas of an airport regardless of the area in which they specialize, completing their studies in a sector of great demand.







“

*The faculty selected by TECH  
will be committed to your  
professional development”*

## Management



### D. Moreno Merino, Rafael

- ♦ High Speed Projects Technician. Risk Assessment Expert at INECO
- ♦ Airport Maintenance Project Manager at INECO
- ♦ Engineer at INECO
- ♦ Director of the Master's Degree in Project, Construction and Operation of Airport Infrastructures
- ♦ Head of Occupational Risk Prevention and Production at ACCIONA
- ♦ Master's Degree in Business Administration at Polytechnic University of Madrid
- ♦ Master's Degree in Business Administration from Polytechnic University of Madrid
- ♦ Degree in Civil Engineering from San Antonio Catholic University of Murcia

## Professors

### D. Martín Ramos, Jorge

- ♦ Specialist in Airport Pavements
- ♦ Experience in airport pavements in airports in different continents
- ♦ Trainer for the Spanish Ministry of Public Works in Airport Issues
- ♦ Master's Degree in Physical Sciences
- ♦ Master's Degree in Airport Systems from the Polytechnic University of Madrid
- ♦ Bituminous Mixes Course: Dosage, Manufacture, Laying and Quality Control by INTEVÍA
- ♦ Professional Expert Course on Civil Works Pavements at the Technical Association of Roads
- ♦ Course on Pavement Evaluation Software Program ELMOD 6 by DYNATEST







# 04

# Structure and Content

The Postgraduate Certificate in Airport Maintenance includes the necessary theory and practice to be able to elaborate the required models in a totally online way. The content, focused on laying the foundations of the documents and regulatory standards in the field, focuses on the basic and most recurrent concepts.





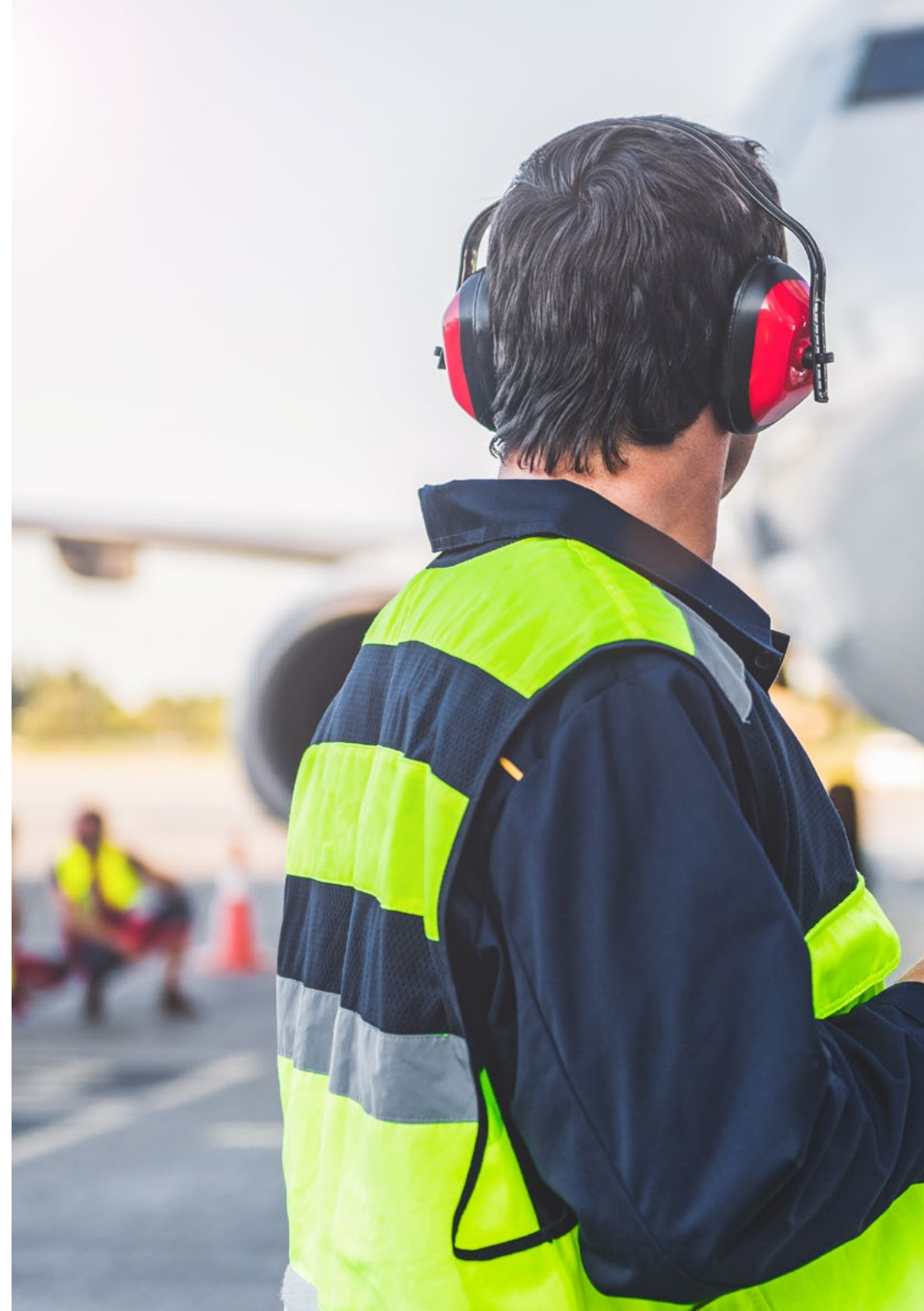


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*A Postgraduate Certificate focused on providing you with specific knowledge in the field of Airport Maintenance”*

## Module 1. Airport Maintenance

- 1.1. Regulatory Framework. Maintenance Instructions
  - 1.1.1. Regulations: Spanish and European
  - 1.1.2. International Regulations (FAA and ICAO)
  - 1.1.3. Types of maintenance Corrective, Predictive, Modifying
- 1.2. Maintenance Program
  - 1.2.1. Definitions, Specifications and Implications
  - 1.2.2. Scope of a Maintenance Program Continuous Improvement
  - 1.2.3. Compliance Indicators
  - 1.2.4. Auditable Maintenance Records
- 1.3. Maintenance of Visual Aids
  - 1.3.1. Maintenance of Overhead Lights
  - 1.3.2. Maintenance of Recessed Lighting
  - 1.3.3. Mega Tower Maintenance
- 1.4. Maintenance of Signage
  - 1.4.1. Horizontal Runway Marking
  - 1.4.2. Horizontal Signaling in Platform Shooting
  - 1.4.3. Signs
- 1.5. Maintenance of Low Voltage Electrical Systems
  - 1.5.1. Pictures
  - 1.5.2. Distribution Lines
  - 1.5.3. Thermography
- 1.6. Maintenance of HIGH Voltage Electrical Systems
  - 1.6.1. Booths
  - 1.6.2. Distribution Lines
  - 1.6.3. Electric Machines



- 1.7. Test Protocols
  - 1.7.1. Power Supply Outage Tests
  - 1.7.2. SMP B
  - 1.7.3. SMP E
- 1.8. Maintenance of Movement Area Surfaces
  - 1.8.1. Paved Areas
  - 1.8.2. Paved Areas
  - 1.8.3. Drainage System
- 1.9. Maintenance of Security Fences and Other Control Devices
  - 1.9.1. Fence Maintenance
  - 1.9.2. Maintenance of Buildings Related to Aeronautical Operations
  - 1.9.3. Maintenance of Buildings Not Related to the Aeronautical Operation
  - 1.9.4. Maintenance of Other Installations
- 1.10. Equipment Maintenance
  - 1.10.1. Maintenance of Airport Vehicles. Airport ITV
  - 1.10.2. Machinery
  - 1.10.3. Computer and Communication Systems Related to Airside Operation



*Discover your best skills  
with a content consisting of  
theoretical conceptualizations  
and practical dimensions”*





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.







“

*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.



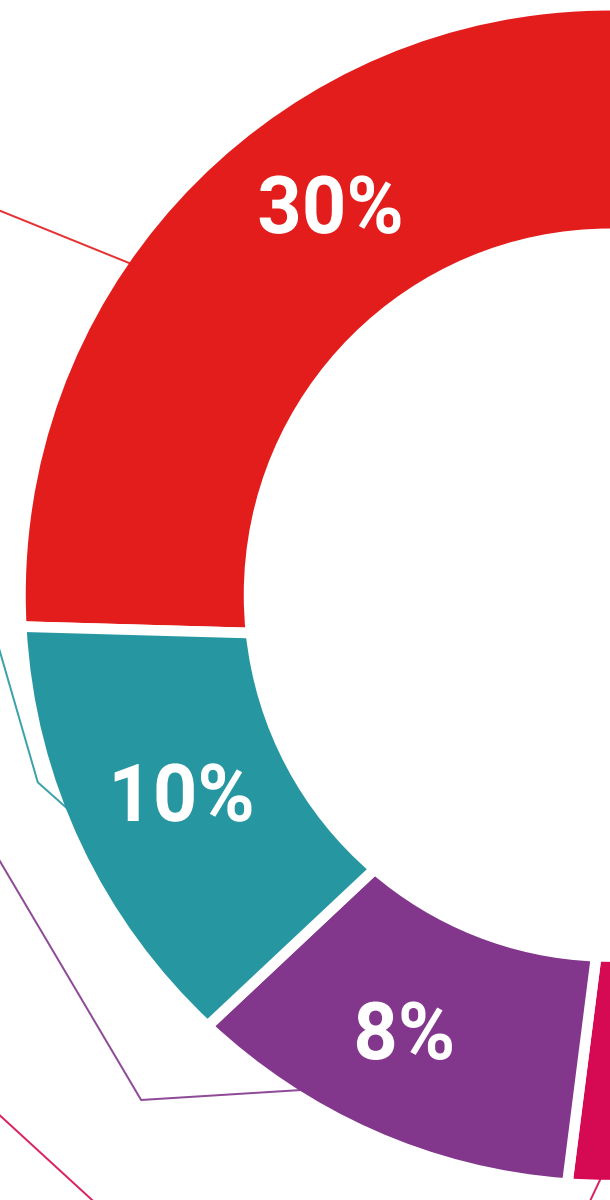
### Practising Skills and Abilities

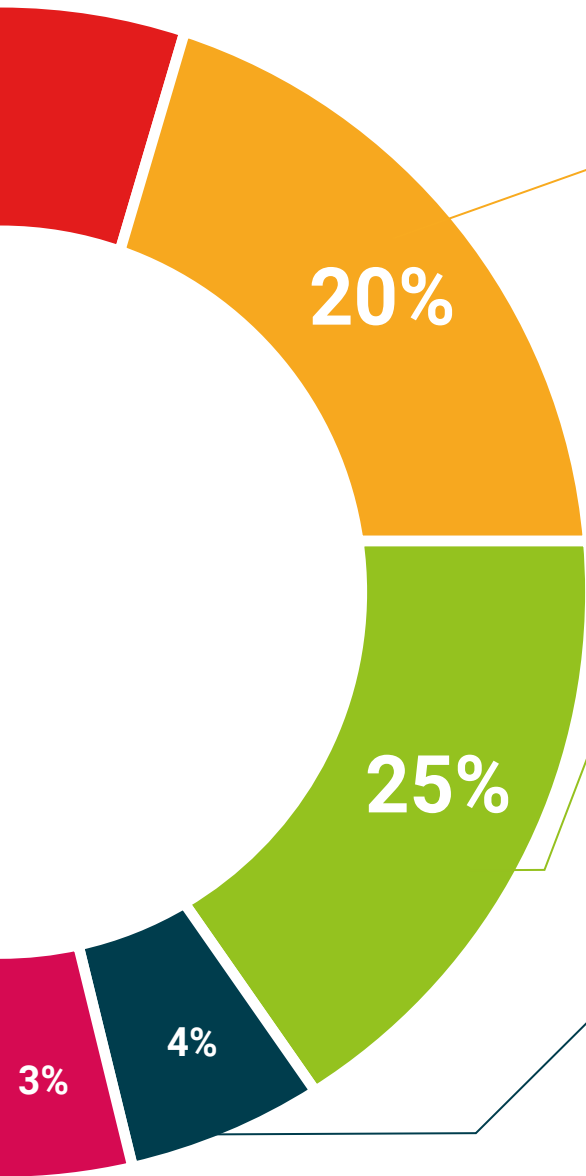
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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 Certificate in Airport Maintenance guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in Airport Maintenance** 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 Certificate** diploma issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Certificate in Airport Maintenance**

Official N° of hours: **150 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 quality  
development language  
virtual classroom



Postgraduate  
Certificate  
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- » Dedication: 16h/week
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