

# Postgraduate Certificate Airport Signage and Lighting





## Postgraduate Certificate Airport Signage and Lighting

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

Website: [www.techtute.com/pk/engineering/postgraduate-certificate/airport-signage-lighting](http://www.techtute.com/pk/engineering/postgraduate-certificate/airport-signage-lighting)

# 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

Specialization in the different areas of the infrastructures that make up an airport is essential if a professional future is to be directed towards the management and operation of these infrastructures, among which lighting signaling is one of the most important. A complete airfield must have an adequate information system for pilots. Therefore, on the one hand, the development of visual aids on the air side and, on the other hand, non-visual aids on the airfield are achieved.

This program is designed to address the lighting systems and their functionality as a means of information to aircraft. A fully online educational program, which is studied through the virtual platform, provided with all the multimedia resources that make up the content.





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*This program is designed to address the lighting systems and their functionality as a means of information to aircraft”*

This Postgraduate Certificate is designed to develop the content on visual aids on the air side and non-visual aids on the airfield. It deals with the lighting systems, describing their connection to the runway, taxiways or apron, indicating their geometrical and luminous configuration and their usefulness. But also, how they are in themselves a communication system for aircraft pilots.

Likewise, this program deals, in several lessons, with the definition of the airfield paintings or horizontal signaling and to understand how they are intended to assist the pilot in flight, during taxiing, takeoff or landing. The content delves into the types of signs that can be placed on the airfield, their location requirements and their meanings, as well as which ones are mandatory and which ones are informational.

The content delves into the types of signs that can be placed on the airfield, their location requirements and their meanings, as well as which ones are mandatory and which ones are informational.

This study plan is planned in a completely online mode, to facilitate the reconciliation of personal and professional life, with the updating of learning and knowledge. For this reason, all the content is available on the virtual platform and the teaching resources and multimedia material can be accessed whenever necessary.

This **Postgraduate Certificate in Airport Signage and Lighting** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Airport Signage and Lighting
- ◆ 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 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



*Continue to update your knowledge and specialize your professional profile with this fully online program"*

“*Learn about airfield lighting systems, as well as horizontal and radio-electric signaling to become an expert in airport lighting and beaconing*”

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.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*With an internet connection and an electronic device, you can connect whenever you want to the virtual platform to continue advancing in the content.*

*Combine your personal and professional life with the constant updating of notions and knowledge with this totally online training.*



# 02

# Objectives

This program has been designed to deepen the knowledge of lighting and the various critical and common airside and the different critical and common infrastructures of the air side of the airport. Therefore, it is also designed to provide the professional with the specific and necessary knowledge to perform with critical opinion in any phase of planning, management and operation of the airport. During this 6-week Postgraduate Certificate, the user is able to acquire the necessary skills to apply what he/she has learned from this educational program.







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*Face new challenges in your profession thanks to this complete educational program with which you will acquire the skills to apply them to new work challenges”*



## 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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- ◆ In-depth depth horizontal runway markings, taxiways, apron horizontal markings, anywhere on the airfield
- ◆ Identify in depth runway, taxiway, apron and airfield lighting systems
- ◆ Detail the types of signs usable on an airfield
- ◆ Design the airfield signage information system
- ◆ Know the requirements for matching AAVV and radio aids
- ◆ Identify apron lighting requirements
- ◆ Monitor compliance with lighting requirements



*Learn like a true professional  
all about airfield lighting"*



03

# Course Management

This program is designed following the guidelines of a group of experts of the highest prestige, active professionals who have dedicated a large part of their careers to develop as airport planners, builders and designers. They ensure that the student's experience is accompanied, so they will be available throughout the study process for tutoring and mentoring. In the same way, they will develop the most practical and professionalizing skills, those that provide the user with his or her own criteria to be able to apply it in professional performance.





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*Acquire practical knowledge and professional judgment to be able to apply to your professional projects”*

## 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



# 04

# Structure and Content

This Postgraduate Certificate in Airport Signage and Lighting, organized in 10 sub-sections that delve into the issue of runway lighting and beaconing, is designed for the progressive acquisition of knowledge. With sections devoted to the understanding of light signals and how they themselves form a communication system with respect to aircraft pilots, emphasis is also placed on the use and arrangement of horizontal and radio signals. The use and arrangement of horizontal signs and radio signals are also emphasized. A complete educational program designed for the requirements of the sector.







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*A very complete and specific Postgraduate Certificate designed to train professionals in a growing sector”*

## Module 1. VPAs and Non-VPAs at the Airport

- 1.1. Horizontal Runway Marking
  - 1.1.1. Threshold Signal
  - 1.1.2. Runway Designator Sign
  - 1.1.3. Track Shaft
  - 1.1.4. Side Girdle
  - 1.1.5. Contact Zone
  - 1.1.6. Waiting Point Signs
  - 1.1.7. Other Signs on the Runway
- 1.2. Horizontal Signaling in Filming
  - 1.2.1. TCL Taxiway Axle Signal
  - 1.2.2. Improved Signal
  - 1.2.3. Edge Signal
  - 1.2.4. Waiting Point Signs INTERMEDIATE
  - 1.2.5. Other Signs on the Filming
- 1.3. Horizontal Signaling in Platform
  - 1.3.1. Edge Signal
  - 1.3.2. ABL Safety Line
  - 1.3.3. Equipment Restriction Area Sign
  - 1.3.4. Signal Equipment Waiting Area
  - 1.3.5. Parking Stall Signs
  - 1.3.6. Post Entry Signal
  - 1.3.7. Pedestrian Path Sign
  - 1.3.8. Other Signs on the Filming
- 1.4. Signs
  - 1.4.1. Aircraft Signs. Information
  - 1.4.2. Aircraft Signs. Obligation
  - 1.4.3. Vehicle and Pedestrian Signs





- 1.5. Signs and Signs at Heliports
  - 1.5.1. Signs on Elevated Heliports
  - 1.5.2. Signals on Surface Heliports
  - 1.5.3. Helicopter Parking Sign
- 1.6. Visual Aids on the Track. Light
  - 1.6.1. Axle Lights
  - 1.6.2. Threshold and End Lights
  - 1.6.3. PAPIs
  - 1.6.4. Approach Lighting System
  - 1.6.5. Windsocks
  - 1.6.6. Other Visual Aids
- 1.7. Visual Aids when Filming. Light
  - 1.7.1. Axle Lights
  - 1.7.2. Edge Lights
  - 1.7.3. Other Visual Aids
- 1.8. Other Visual Aids. Radio Aids
  - 1.8.1. ILS
  - 1.8.2. VOR DME
  - 1.8.3. Other Non-Visual Aids
- 1.9. Lighting
  - 1.9.1. Lighting Requirements
  - 1.9.2. Mega Towers
  - 1.9.3. Lighting Studies
- 1.10. Waiting Points
  - 1.10.1. Track Entry Waiting Points
  - 1.10.2. Waiting Points
  - 1.10.3. Runway Protection Lights
  - 1.10.4. Stop Bars

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 Certificate in Airport Signage and Lighting 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 Signage and Lighting** 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** issued by **TECH Technological University** via tracked delivery\*.

The certificate 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 Signage and Lighting**

Official N° of hours: **150 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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** technological  
university

personalized service innovation

knowledge present Airport Signage and Lighting

online training

development language

virtual classroom

## Postgraduate Certificate Airport Signage and Lighting

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

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