

# Postgraduate Certificate Integrated Aviation Sustainability



## Postgraduate Certificate Integrated Aviation Sustainability

- » 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/integrated-aviation-sustainability](http://www.techtute.com/us/engineering/postgraduate-certificate/integrated-aviation-sustainability)

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# 01

# Introduction

Since 2015, when the UN member countries approved the Sustainable Development Goals, there has been a turning point in environmental policies in the aeronautical sector. Thus, the search for solutions to the emission of polluting gases or the reduction of acoustic noise have become part of the goals of manufacturers and in the processes of infrastructure design. A field of action that includes this 100% online academic proposal of 6 weeks duration and with the most current syllabus. A complete program, developed by real industry experts, which will lead the graduates to delve into the various aspects of integral sustainability through an enriching multimedia content.





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*A 100% online, flexible Postgraduate Certificate that will allow you to be up to date in Integrated Aviation Sustainability”*

The air transport sector is involved in achieving the SDGs and in promoting the economic and social development of different countries. A goal that brings together the efforts of aircraft manufacturers, airport infrastructure managers, air operators, navigation and ground handling service providers. A group of players that also includes engineering professionals, who are responsible for designing, planning and creating more efficient and environmentally friendly aircraft.

In this sense, engineers must be aware of the current transformation of the industry from "green" to comprehensive sustainable development. In this sense, TECH has designed a university program in a flexible teaching format enriched with numerous teaching materials, accessible 24 hours a day, from any digital device with Internet connection.

It is, therefore, a program that will allow students to learn in depth about airline alliances, physical globalization and how the different multinational airline organizations interact to adopt economic-technical, social and environmental sustainability measures.

A learning that will be much more a simple acquire the thanks to the video summaries, detailed depth videos, case studies and specialized readings. In addition, with the Relearning method, students will not have to invest many hours of study and memorization time, since this system will allow them to easily consolidate the key concepts.

An ideal academic option for those graduates who seek to progress in a leading sector through a Postgraduate Certificate that will allow them to advance with firm and safe steps. All this, in addition, through an education that does not require attendance, or classes with tight schedules and allows to reconcile the most demanding daily activities.

This **Postgraduate Certificate in Integrated Aviation Sustainability** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Development of case studies presented by experts in Aeronautical engineering
- ◆ 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 work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Delves into the social sustainability of aviation: from tourist access to emergency assistance”*

“

*A 150-hour intensive training course with the most advanced content on new management models in the air transport sector”*

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.

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.

*Access the complete Virtual Library of this university program whenever and wherever you want.*

*Delve into the transition from green to comprehensive sustainable development that aviation is undergoing today.*



# 02

# Objectives

This Postgraduate Certificate has been designed with the purpose of offering students a syllabus with a theoretical-practical approach that will allow them to advance in the aeronautical sector by implementing integral sustainability actions. To achieve this goal, TECH provides pedagogical tools in which it has used the latest technology applied to university teaching. A unique opportunity for growing, only this institution, the largest digital university in the world, can offer.







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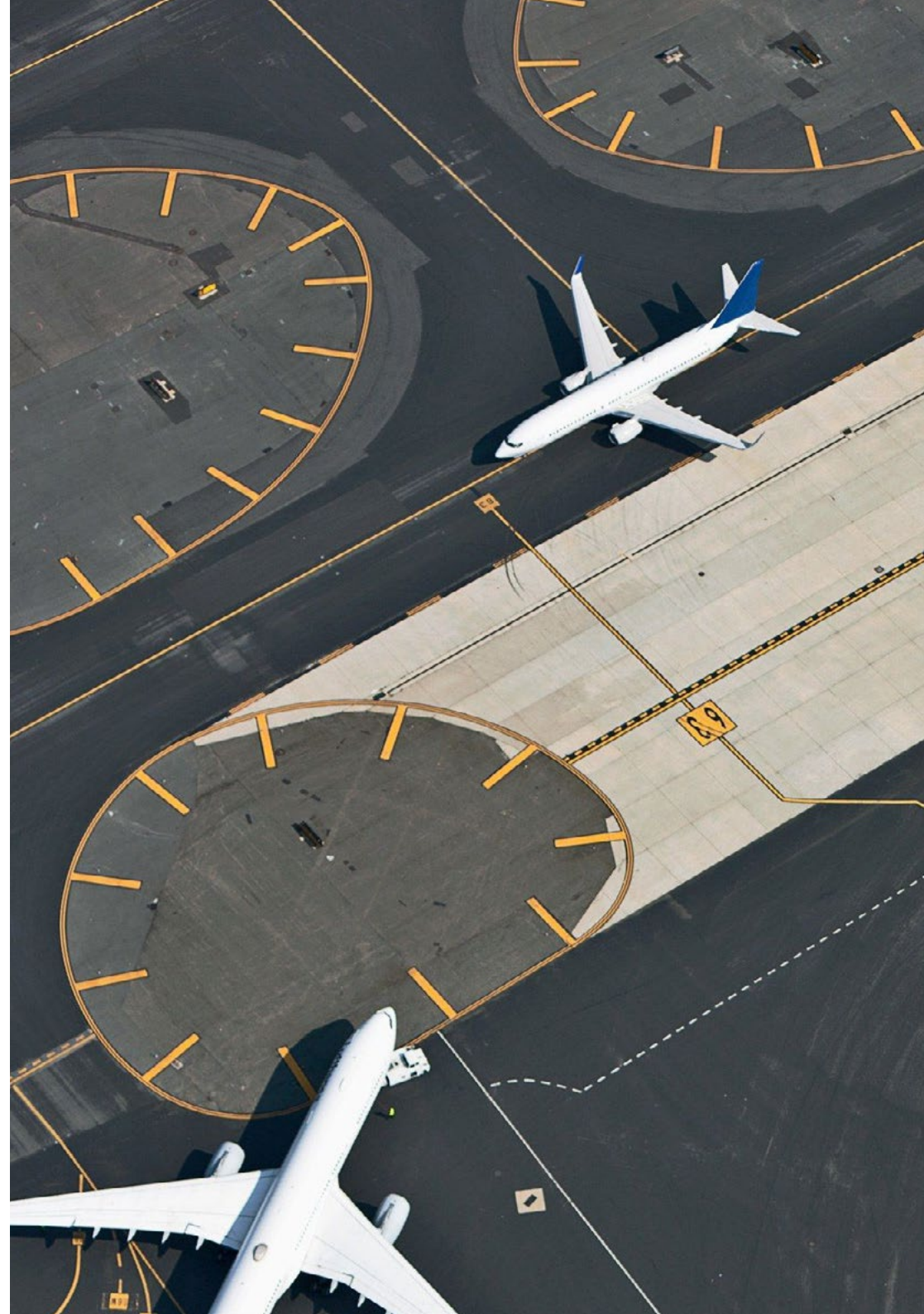
*You will achieve your goals of progression in the aeronautical sector through an education that allows you to investigate the efficiency of consumption”*



## General Objectives

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- ◆ Provide the professionals with the specific and necessary knowledge to perform, with a critical and informed opinion, in any phase of planning, design, manufacture, construction or operation in the various companies of the aviation sector
- ◆ Identify the problems in aeronautical designs and projects in order to know how to propose effective, viable and sustainable overall solutions
- ◆ Acquire the fundamental knowledge of existing technologies and innovations under development in transport systems, in order to be able to conduct research, development and innovation studies in aeronautical companies and technology centers
- ◆ Analyze the main conditioning factors involved in the aeronautical activity and how to efficiently apply the latest techniques used in the aviation sector today
- ◆ Acquire a specialized approach and be able to monitor the management of any aeronautical department, as well as to execute the general management and the technical management of designs and projects
- ◆ Delve into the knowledge of the different critical aeronautical areas according to their different relevant actors, as well as achieve the knowledge, understanding and ability to apply the applicable aeronautical or non-aeronautical legislation and regulations





## Specific Objectives

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- ◆ Examine the involvement of aviation stakeholders in integrated sustainability
- ◆ Identify the relevant contents of the three pillars of sustainability in aviation
- ◆ Define the key elements of airport economic-technical sustainability, airport social sustainability and airport environmental sustainability
- ◆ Specify the outline of comprehensive airport sustainability as a model for the rest of the aviation stakeholders
- ◆ Propose and apply integrated solutions for aviation and develop a case study applied to safety



*An academic option aimed at providing you with to provide you with the knowledge you need on airport economic-technical sustainability. Grow professionally with TECH”*

# 03

# Course Management

TECH has brought together in this program a distinguished faculty in the aeronautical sector and in the field of teaching. Two fundamental areas that will allow students to acquire advanced knowledge about the integral sustainability of aviation through the most innovative didactics. In addition, thanks to the proximity of the teaching team, the graduates will be able to resolve any doubts they may have about the content of this university program.



“

*Renowned specialists in aeronautical engineering with an excellent professional background will be responsible for bringing you the most advanced agenda on integral sustainability in this sector”*

## Management



### D. Torrejón Plaza, Pablo

- ♦ Engineering Technician at ENAIRE
- ♦ Head of the Regulatory Unit of the National Airports Autonomous Organization
- ♦ Head of the Analysis Section of the National Airports Autonomous Organization Cabinet of the General Director
- ♦ Head of the Operations Section, Head of the Airport Security Office and Service Executive at Tenerife Sur Airport
- ♦ Head of the Procedures and Organization Section in the Office of the General Director of Aena Airports
- ♦ Head of the Programming Department and in the Office of the President of Aena
- ♦ Head of the Institutional Coordination and Parliamentary Affairs Division  
Associate Professor and Collaborator in the Aeronautical Management Degree at the Universidad Autónoma de Madrid
- ♦ Head of the Regulatory Unit of the National Airports Autonomous Organization
- ♦ Head of the Analysis Section of the National Airports Autonomous Organization Cabinet of the General Director
- ♦ Head of the Operations Section, Head of the Airport Security Office and Service Executive at Tenerife Sur Airport
- ♦ Master's Degree in Airport Systems from the Polytechnic University of Madrid
- ♦ Master in Organizational Management in Knowledge Economy from the Universitat Oberta de Catalunya (Open University of Catalonia)
- ♦ Master's Degree in Executive MBA from the Instituto de Empresa in Madrid
- ♦ Aerospace Engineer from the University of León
- ♦ Aeronautical Technical Engineer by Universidad Politécnica de Madrid
- ♦ Aeronautical Manager from the Autonomous University of Madrid
- ♦ Honorary decoration "Alférez Policía Nacional del Perú Mariano Santos Mateos gran General de la Policía Nacional del Perú" for exceptional services in aeronautical consultancy and training



# 04

# Structure and Content

The syllabus of this university program has been developed by a team of professionals versed in aeronautical engineering. Their excellent knowledge and accumulated experience in the sector will allow the graduates to obtain the latest information on the involvement of all industry players to generate much more sustainable infrastructures, aircraft and equipment. A wide range of content complemented by numerous additional didactic material, accessible 24 hours a day.







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*Thanks to the Relearning method, you will reduce the hours of study and in only 6 weeks you will master the integral sustainable development in the aviation sector”*

## Module 1. Integral Sustainability of Aviation

- 1.1. Cross-border vocation of aviation in its development
  - 1.1.1. Development and evolution of civil aviation
  - 1.1.2. ICAO as a regulatory actor and internationalization
  - 1.1.3. IATA coordination actor for airlines
- 1.2. Flag carriers and air transport agreements between countries
  - 1.2.1. From sport and general aviation to national strategic operators
  - 1.2.2. Intentional agreements between countries for commercial air transport
  - 1.2.3. The freedoms of the air
- 1.3. 20th Century: Own, Western or Eastern aircraft
  - 1.3.1. From national manufacturers to two duopolies and some state-owned giants
  - 1.3.2. The fastest or the largest
  - 1.3.3. New management models: manufacturer, maintainer and financier
- 1.4. Airline alliances, EUROCONTROL, AIRBUS and international airport concessions
  - 1.4.1. Airlines: from agreed route sharing, to competition and/or integration
  - 1.4.2. Alliances in European aviation favored by supranational integration
  - 1.4.3. From airports in a national network to groups with international concessions
- 1.5. Physical globalization: Navigating the sea and Virtual, navigating the network
  - 1.5.1. The adventure of navigating the earth in both directions
  - 1.5.2. Magellan and El Cano
  - 1.5.3. The global village
- 1.6. From green to integral sustainable development
  - 1.6.1. Ecologism
  - 1.6.2. Integral sustainable development
  - 1.6.3. SDGs and Agenda 2030
- 1.7. Comprehensive global and sustainable aviation
  - 1.7.1. Multinational and global aviation organizations
  - 1.7.2. Positive and negative impacts of aviation and on aviation
  - 1.7.3. The airport as a hub for the concentration of all aviation stakeholders





- 1.8. Economic-technical sustainability of aviation
  - 1.8.1. We are all "low cost", some are "low cost"
  - 1.8.2. Economic income for all and also social income for the "public"
  - 1.8.3. OACI. Generator of global technical standards
- 1.9. Social sustainability of aviation
  - 1.9.1. Generators of connectivity, wealth and employment
  - 1.9.2. From access for tourism to enabling emergency assistance
  - 1.9.3. Public dissemination of positive impacts unknown to society
- 1.10. Environmental sustainability of aviation
  - 1.10.1. Efficiency in consumption and reduction of acoustic and gaseous emissions
  - 1.10.2. Suppression, attenuation and compensation of negative impacts
  - 1.10.3. Aviation commitment and involvement to reduce carbon footprint

“ *Incorporate advances in sustainable measures applied in aviation into your engineering projects* ”

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 Integrated Aviation Sustainability 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 Integrated Aviation Sustainability** 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 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 Integrated Aviation Sustainability**

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.



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