Postgraduate Certificate
Aeronautical Communications and Drones

tech global university

Postgraduate Certificate
Aeronautical Communication
and Drones

» Modality: **online**
» Duration: **6 weeks**
» Certificate: **TECH Global University**
» Credits: **6 ECTS**
» Schedule: **at your own pace**
» Exams: **online**

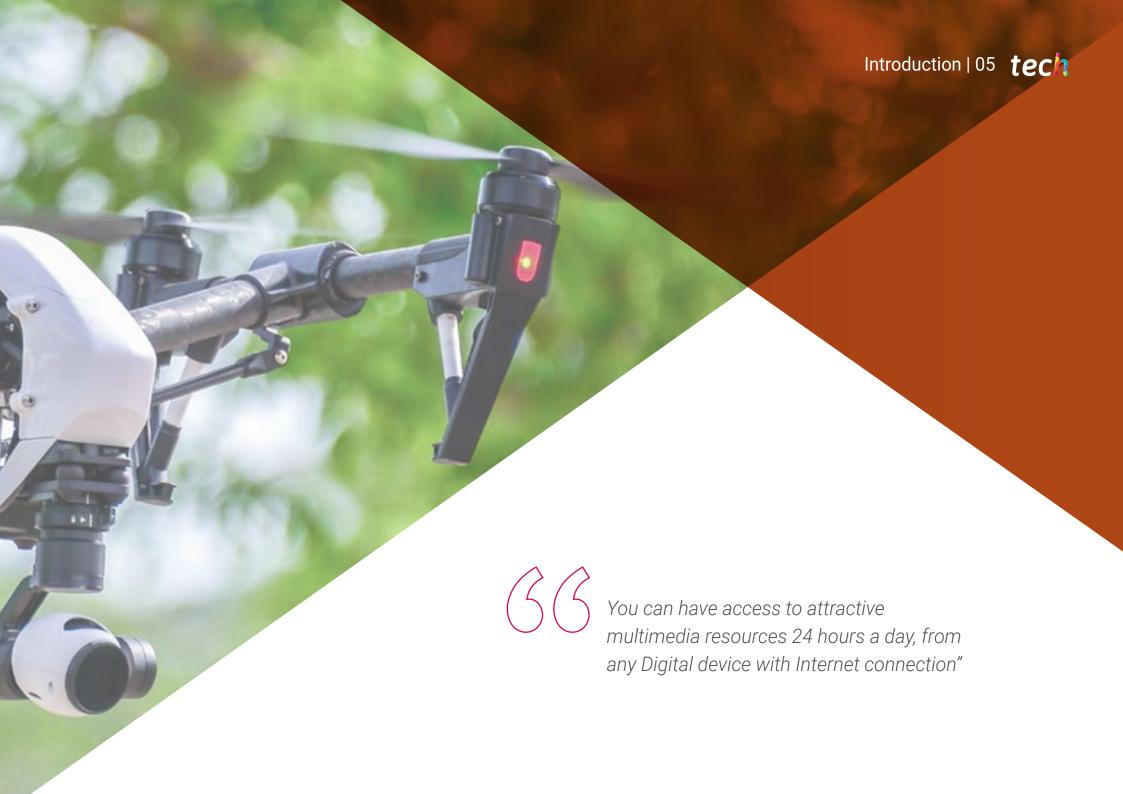Website: **www.techtitute.com/us/engineering/postgraduate-certificate/aeronautical-communication-drones**

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01
Introduction

The great boom in the use of drones in various sectors has led to a regulation of their use and the need to know the aspects of aeronautical communication in order to strengthen safety. In this sense, this matter must be mastered by the engineers who want to be part of projects where the drone is used as a system for tracking or for taking measurements. Given this reality, TECH has decided to design this 100% online degree that will take the graduate to be up-to-date with aeronautical communication procedures, translation of terms and interaction with ATC. All this, in a flexible didactic methodology that allows you to reconcile daily activities with a first level teaching.

You can have access to attractive multimedia resources 24 hours a day, from any Digital device with Internet connection"

The improvement of technology and innovation have boosted the drone industry, reaching quotas that have allowed its use both to the general population and to specialists from various socio-economic sectors. In this sense, it is essential that the engineer is aware of communication procedures in order to promote collaborative work with other experts involved in operations or to improve aviation safety.

Also, having this knowledge increases the ability to act in the creation of engineering projects in this industry and generates a competitive advantage over other professionals. For this reason, TECH has developed this Postgraduate Certificate in Aeronautical Communications and Drones of 180 teaching hours.

It is an intensive program that leads students to obtain an advanced learning on the theoretical and practical requirements necessary for the qualification of radiophonist for remote pilots, aeronautical terminology and current communication procedures. To achieve this learning, the graduate has numerous teaching materials based on video summaries of each topic, videos in detail, specialized readings and case studies.

In addition, thanks to the Relearning method, based on the reiteration of content, the student will be able to reduce the hours spent on study and memorization, so frequent in other pedagogical systems.

An excellent opportunity to obtain a quality qualification that is distinguished by its content and flexibility. You only required an electronic device with an Internet connection to visualize, at any time, the syllabus of this program.

This **Postgraduate Certificate in Aeronautical Communications and Drones** contains the most complete and up-to-date program on the market. The most important features include:

- Practical cases presented by experts in Drone Piloting
- The graphic, schematic, and practical content with which they are created, provide scientific and 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 have practical communications and radiotelephony guides at uncontrolled aerodromes. Enroll now"

TECH adapts to your agenda and your motivations for professional growth. That's why it has created a flexible and 100% online degree"

With TECH you will be aware of the radio and communication procedures of Air Traffic Control.

Become an Aeronautical Communications and Drones expert in just 6 weeks.

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

After completing the 6 weeks of this university program, students will have obtained advanced teaching on concepts related to Aeronautical Communications and Drones. You will also be aware of the radiotelephony guides at uncontrolled aerodromes and the practical communication guide. Everything from a theoretical-practical perspective that will make you grow professionally as an engineer within this booming sector and get involved in the most powerful companies in this industry.

With this academic proposal, you will be aware of the aeronautical vocabulary in English and Spanish used in communications"

General Objectives

- Carry out professional safe flights in the different scenarios, following the normal and emergency procedures established in the Operations Manual

- Carry out the test flights necessary for the development of air operations following the manufacturer's maintenance manual indications and the legislation in force

- Identify the work procedures involved in each intervention, both flight and maintenance, in order to select the required technical documentation

- Evaluate situations of occupational risk prevention and environmental protection. Propose and apply prevention and protection measures, both personal and collective, according to the applicable regulations in the work processes, in order to guarantee safe environments

Thanks to the case studies of this program you will be aware of the different communicative situations that can occur before a drone flight"

Specific Objectives

♦ Define and know the characteristics of waves and their transmission

♦ Identify the bands of frequency and know their main characteristics

♦ Delve into aeronautical frequency bands

♦ Identify and know the types of wave: Radio waves Ground waves Celestial waves

♦ Know and identify the main components in a radio transmission and the elements that make up a transmission

♦ Identify the different categories of the messages

♦ Using the phonetic alphabet Transmission of letters and numbers Decimal numbers Identifiers

♦ Use the structure and components of standard communications Communication structure Message order Listening

♦ Correct application of transmission techniques Microphone techniques Message transmissions Message collation

♦ Describe and use standard phraseology. Messages and use in air traffic and general air travel

♦ Gain in-depth knowledge of the different types of aerodromes and the types of transmission used in each of them: controlled and uncontrolled aerodromes. Controlled and uncontrolled aerodromes

♦ Comprehend and implement emergency procedures Description and practice of the procedures Danger conditions Content of distress messages Radio silence Powers of the competent authority

♦ Prioritize and implement emergency procedures

03
Course Management

In order to offer a high level course, TECH has gathered an excellent teaching team expert in piloting drones and aircraft. In this way, the graduate will get an apprenticeship from the hand of authentic specialists, who make clear throughout the Postgraduate Certificate their deep knowledge of Aeronautical Communications and Drones. To its excellent professional background is added its closeness, which will allow the graduate to resolve any questions they have about the content of this program.

Get a first level learning thanks to the program made by authentic experts in Drones and aeronautics"

Management

Mr. Pliego Gallardo, Ángel Alberto

- Airline Transport Pilot ATPL and RPAS Instructor
- Drone flight instructor and examiner at Aerocameras
- Project Manager at ASE Pilot School
- Flight Instructor at FLYBAI ATO 166
- RPAS specialist teacher in university programs
- Author of publications related to the field of Drones
- Researcher in R+D+i projects related to RPAS
- Airline Transport Pilot ATPL by the Ministry of Education and Science
- Degree in Primary Education Teaching from the University of Alicante
- Certificate in Pedagogical Aptitude, University of Alicante

04
Structure and Content

The Syllabus of this Postgraduate Certificate has been developed by an excellent teaching team specialized in Drones. Its great knowledge in this field is evident in this agenda that breaks down the most relevant concepts related to aviation communications and the use of radio in the aeronautical field. For this, it has a set of innovative pedagogical tools that you can access, comfortably, at any time of the day and place.

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"Thanks to the Relearning Method you will achieve to reduce the long hours of study and memorization. Enroll now"

Module 1. Communication

1.1.   Radiophonist Qualification for Remote Pilots

    1.1.1.   Theoretical Requirements

    1.1.2.   Practical Requirements

    1.1.3.   Programming

1.2.   Emitters, Receptors and Antennae

    1.2.1.   Emitter

    1.2.2.   Receptors

    1.2.3.   Antennae

1.3.   General Principles of Radio Transmission

    1.3.1.   Radio Transmission

    1.3.2.   Causality of Radio Communication

    1.3.3.   Radio Frequency Justification

1.4.   Use of Radio

    1.4.1.   Guide to Radiophony at Uncontrolled Aerodromes

    1.4.2.   Practical Communication Guide

    1.4.3.   The Q Code

        1.4.3.1. Aeronautical

        1.4.3.2. Maritime

    1.4.4.   International Alphabet for Radio Communication

1.5.   Aeronautical Vocabulary

    1.5.1.   Aeronautical Phrasing Applicable to Drones

    1.5.2.   English-Spanish

    1.5.3.   Spanish-English

1.6.   Use of Radio Spectrum Frequencies

    1.6.1.   Definition of the Radio Spectrum

    1.6.2.   CNAF (Spanish National Frequency Allocation Chart)

    1.6.3.   Services

1.7.   Aeronautical Mobile Service

    1.7.1.   Limitations
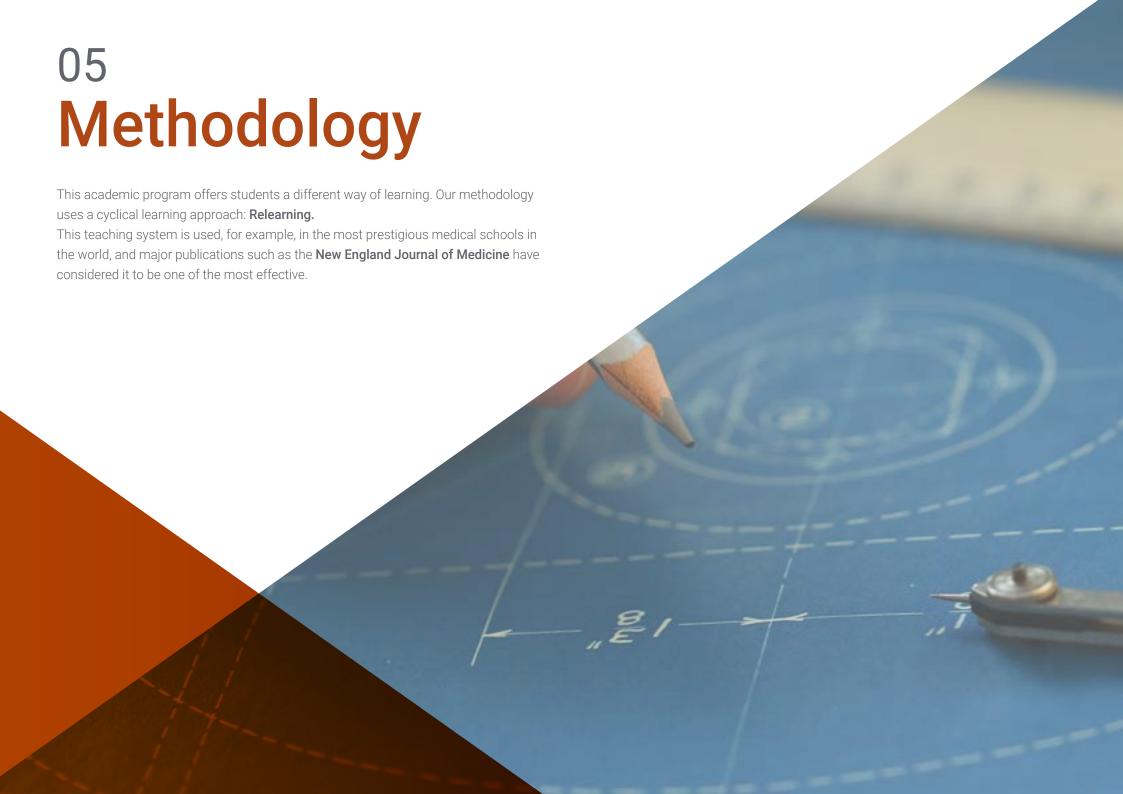
    1.7.2.   Messages

    1.7.3.   Cancellations

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Delve from the comfort of your home and from your computer with internet connection in the ATC instructions"

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.

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.

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

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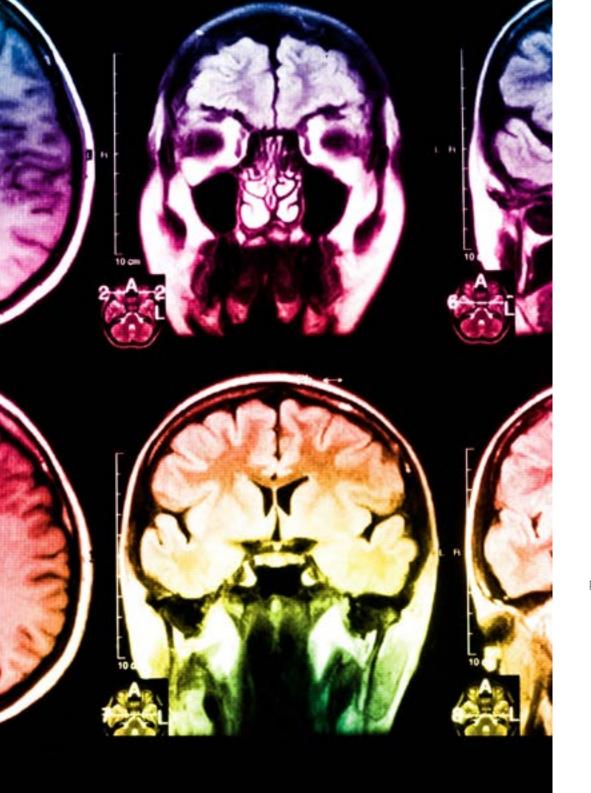
We enhance the Case Study with the best 100% online teaching method: Relearning.

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.
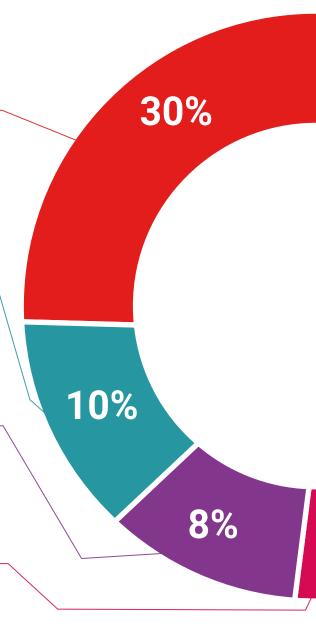
Practising Skills and Abilities

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.

30%

10%

8%

20%

25%

4%

3%

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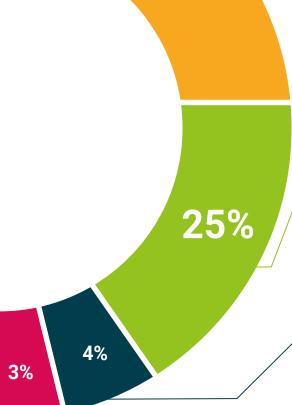
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

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.

Certificate

The Postgraduate Certificate in Aeronautical Communications and Drones guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

" *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 Aeronautical Communication and Drones** 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 Aeronautical Communication and Drones**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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Mr./Ms. _____, with identification document _____ has successfully passed and obtained the title of:

Postgraduate Certificate in Aeronautical Communication and Drones

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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