

# Postgraduate Certificate Human Factors for Remotely Piloted Aircraft





## Postgraduate Certificate Human Factors for Remotely Piloted Aircraft

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

Website: [www.techtitute.com/us/engineering/postgraduate-certificate/human-factors-remotely-piloted-aircraft](http://www.techtitute.com/us/engineering/postgraduate-certificate/human-factors-remotely-piloted-aircraft)

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# 01

# Introduction

Stress, workload or poor communication can affect air safety. For this reason, the human factor is key, whether in the piloting of manned aircraft or those that are remotely controlled. In this sense, it is essential that professionals have the necessary tools to cope with any type of situation, work as a team and know the medical limitations established by the competent authorities. In this line, this 100% online program provides the graduate with advanced knowledge of human factors for flying with unmanned aircraft. All this, in addition, with an innovative multimedia didactic material, elaborated by professionals with extensive experience as RPAS pilots and flight instructors.





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*With this 100% online Postgraduate Certificate, master all the mental health factors that can affect RPA piloting”*

The mental and emotional health of unmanned aircraft pilots is an element that influences the effectiveness of their work, as well as the safety of their team and the public, which can be impacted by a large-scale incident due to the incorrect use of drones.

In this sense, professionals who wish to increase their skills in this sector must know the medical limitations to fly unmanned aircraft, workload management or how to lead a team. For this reason, TECH has designed this Postgraduate Certificate in Human Factors for Remotely Piloted Aircraft that only lasts 6 weeks.

This is a university program of 150 teaching hours, which leads students to delve into aeronautical psychology through a syllabus prepared by specialists with extensive experience as RPA pilots and drone instructors. In order to achieve this objective successfully, this academic institution provides advanced didactic resources such as video summaries, detailed videos, specialized readings and case studies.

Likewise, thanks to the Relearning method, based on the continuous reiteration of key concepts, students will reduce the long hours of memorization and will consolidate the contents in a much easier way.

The professional is therefore faced with an academic proposal that is committed to quality teaching while at the same time favoring the flexibility to take the course. Students only need a digital device with an Internet connection to visualize the contents hosted on the virtual platform at any time. In this way, without classroom attendance or classes with restricted timetables, the student has greater flexibility to self-manage their own study time.

This **Postgraduate Certificate in Human Factors for Remotely Piloted Aircraft** 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 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



*An academic option that allows you to have greater self-management of your study time"*

“

*It delves into the medical limitations established in Spain and Europe for piloting remote-controlled aircrafts"*

*Thanks to the Relearning method, this high level learning will be much easier and without investing long hours of study.*

*Learn more about positive psychology and apply it during your flights with unmanned aircraft. Enroll now.*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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

The psychological factor is a key factor in aviation safety and piloting. This is the reason this Postgraduate Certificate focuses on advanced learning on Human Factors for Remotely Piloted Aircraft. From a theoretical-practical perspective and aided by the best pedagogical tools, the graduate will have the opportunity to acquire a very useful learning for the piloting of drones in any kind of circumstances.





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*Increase your possibilities for professional growth through a Postgraduate Certificate oriented to improve your ability to improve your performance capacity in the handling of drones”*



## General Objectives

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- ♦ Carry out professional safe flights in 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





## Specific Objectives

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- ♦ Acquire an integrated vision of aviation psychology and medicine
- ♦ Gain an in-depth knowledge of the situational causes and consequences related to the remote pilot profession
- ♦ Adapt to new work situations generated as a result of the means and aeronautical techniques used, labor relations and other aspects related to the specialization
- ♦ Maintain fluid relations with the members of the functional group in which they are integrated, taking responsibility for the achievement of the objectives assigned to the group, respecting the work of others, organizing and directing collective tasks and cooperating in overcoming the difficulties that arise
- ♦ Solve problems and make decisions within the scope of their subordinates' and their own achievements, within the framework of established rules and plans



*Increase your skills to work with teams in stressful situations thanks to this university program"*



03

# Course Management

TECH, in its commitment to offer a high quality education, carries out a thorough selection process for each one of the teachers who make up their programs. This way, the graduate will have the opportunity to access a program developed by professionals with extensive experience as RPAS pilots and flight instruction of unmanned vehicles. Likewise, thanks to their proximity, the engineer will have the opportunity to resolve any doubts they may have during the course of this program.





“

*Get an advanced knowledge of  
aeronautical psychology through  
the best RPAS specialists”*

## Management



### Dr. Pliego Gallardo, Ángel Alberto

- ♦ Airline Transport Pilot ATPL and RPAS Instructor
- ♦ Drone flight instructor and examiner at Aero-cameras
- ♦ 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

## Professors

### Ms. López Amedo, Ana María

- ♦ RPAS Pilot and Instructor
- ♦ RPA instructor in several courses
- ♦ RPAS Examiner in several courses
- ♦ Vice-president of the Valencian Federation of Aerial Sports
- ♦ President of the San Vicente del Raspeig Air Sports Club
- ♦ Drone Pilot by the ATO-166 FLYBAI
- ♦ Drone Instructor by ATO-166 FLYBAI
- ♦ Radiotelephone operator by ATO-166 FLYBAI





# 04

## Structure and Content

The syllabus of this university program includes an advanced course on aeronautical psychology, the medical requirements for piloting an aircraft, and various situations such as stress that affect pilots. Students will have the opportunity to delve into these topics in a dynamic way through the numerous didactic resources housed in the virtual library, accessible 24 hours a day, 7 days a week.





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*You have numerous additional teaching resources at your fingertips to further extend the information provided in this university program”*

## Module 1. Human Factors for Remotely Piloted Aircraft

- 1.1. Aeronautical Psychology
  - 1.1.1. Definition
  - 1.1.2. Principles and Functions
  - 1.1.3. Objectives
- 1.2. Positive Psychology
  - 1.2.1. Definition
  - 1.2.2. FORTE Model
  - 1.2.3. FLOW Model
  - 1.2.4. PERMA Model
  - 1.2.5. EXPANSION Model
  - 1.2.6. Potentialities
- 1.3. Medical Requirements
  - 1.3.1. Limitations in Europe
  - 1.3.2. Classification
  - 1.3.3. Periods of Validity of Aeronautical Medical Certificates
- 1.4. Concepts and Good Practice
  - 1.4.1. Objectives
  - 1.4.2. Domains
  - 1.4.3. Regulations
  - 1.4.4. Considerations
  - 1.4.5. Procedures
  - 1.4.6. Drugs
  - 1.4.7. Vision
  - 1.4.8. Clinical Aspects
- 1.5. The Senses
  - 1.5.1. The View
  - 1.5.2. Structure of the Human Eye
  - 1.5.3. Hearing: Definition and Schema
- 1.6. Situational Conscience
  - 1.6.1. The Effect of Disorientation
  - 1.6.2. The Illusion Effect
  - 1.6.3. Other Exogenous and Endogenous Effects





- 1.7. Communication
  - 1.7.1. Thesis
  - 1.7.2. Factors of Communication
  - 1.7.3. Elements of Communication
  - 1.7.4. Assertiveness
- 1.8. Workload Management. Human performance
  - 1.8.1. Background and Consequences
  - 1.8.2. Stress of General Adaptation Syndrome
  - 1.8.3. Causes, Stages and Effects
  - 1.8.4. Prevention
- 1.9. Teamwork
  - 1.9.1. Description of Teamwork
  - 1.9.2. Characteristics of Teamwork
  - 1.9.3. Leadership
- 1.10. Health Aspects That Could Affect the RPAS Pilot
  - 1.10.1. Disorientation
  - 1.10.2. Illusions
  - 1.10.3. Illnesses



*Conduct a dynamic academic tour on  
Aeronautical Psychology in drone pilots"*

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 Human Factors for Remotely Piloted Aircraft 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 Human Factors for Remotely Piloted Aircraft** 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 Human Factors for Remotely Piloted Aircraft**

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  
development language  
virtual classroom



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