

Internship Program

Drone Piloting



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01

Introduction

The implementation of the use of drones in increasingly diverse areas has triggered the demand for professionals who perfectly handle these devices. Sectors such as those related to the security forces of the State or the transport of goods already use this as a main tool in their day-to-day work. However, as this is still a developing area, changes are taking place in relation to regulations and the correct use of aircraft, which is why its professionals need to be constantly updating their knowledge. Based on this, TECH has decided to launch an eminently practical program focused on drone piloting. This is a unique opportunity to study 120 hours of practical training in an international reference center and to add to your curriculum the exhaustive mastery of the latest unmanned aeronautical equipment.

“

Don't miss the opportunity to implement the DJI Mavic Air 2 or Neheme NH530 in your practice with this Internship Program"





The emergence of drones marked a turning point in surveillance methods. However, these devices have been integrated into other areas. One of them is the control of events from the air and the attention in emergencies located in difficult to access places. It is a very useful tool in warfare environments and therefore security forces also have drone pilots. The demand for technical resources associated with inspection, emergency, safety and security tasks requires the incorporation of professionals with transversal knowledge associated with aviation.

For this reason, TECH has designed a practical program that focuses students on the highest level of aviation, in the field for 3 weeks and supported by experts with years of experience in the drone industry. The broad approach of this specialty makes it necessary to focus on flight practices and their characteristics, because only in this way will the pilot be able to develop the necessary skills for effective Drone Piloting. The main objective of this Internship Program is to provide students with a complete and rigorous experience in Drone Piloting and everything related to this activity such as map interpretation.

All this, to successfully address the professional challenge of aviation and the approach to specific scenarios, such as catastrophes or overcrowding. The multidisciplinary skills acquired by the specialist after completing this program are prominently reflected in their knowledge of remote control and the meteorological and human factors that may hinder aircraft activity. TECH offers an Internship Program in highly recognized aviation centers, so that specialists can develop piloting techniques in different real scenarios, in which they will officially develop their work. This practical period will consist of 3 weeks of learning, during which time the student will have the guidance of flight instructors who belong to the team of the centers where they will carry out their practical training.

02

Why Study an Internship Program?

The piloting of drones comprises a compendium of functions that go beyond their technical handling. For this reason, TECH has considered it necessary to develop an eminently practical program focused on this area, from the maintenance of the aircraft to the intricacies of its control mechanisms. The graduate will have access to an exclusive center of the highest level where they will be able to master the techniques of professional piloting of these devices at all levels, including the latest ones that have been launched on the market.



This practical program will give you the possibility to access a significant salary increase thanks to the demonstration of a thorough mastery of Drone Piloting in different contexts"

1. Updating from the latest technology available

Tuition for this Internship Program includes access to the most innovative technology related to the drone field. In addition, the graduate will be able to handle the most sophisticated tools for the mechanics and maintenance of aircraft, with special emphasis on the characteristics of each one, as well as the ins and outs of their correct use in the current context.

2. Gaining In-Depth Knowledge from the Experience of Top Specialists

A team versed in Drone Piloting will accompany the graduate during the 3 weeks of practical stay. In addition, the graduate will have the support of a tutor, who will ensure that all the requirements for which this Internship Program was designed are met. In this way, the graduate will obtain a critical and multidisciplinary vision of this profession, using their experience to implement the most effective management strategies in their own practice.

3. Entering first-class Management environments

Access to these internships will allow the graduate to participate in the handling of drones in various circumstances and conditions. In this way, you will work on mastering how to adapt your flight to the different contexts that may arise in your workspace in the future.



4. Putting the acquired knowledge into daily practice from the very first moment

All the exercises that the graduate performs during the 120 hours of practice will be perfectly applicable to any field in the drone area. TECH designs the action plan for this type of program in a way that is adapted to internationalization standards, allowing professionals to update their practice according to the requirements and regulations that govern the activity in general.

5. Expanding the Boundaries of Knowledge

Drone Piloting is increasingly in demand in all parts of the world and in more and more fields. For that reason, TECH launches this Internship Program as a unique opportunity for professionals to become versed in this area and access a wider labor market in any country, giving them the opportunity to move their career to the place of their choice after only 3 weeks of intensive and comprehensive work.



You will have full practical immersion at the center of your choice"

03

Objectives

This program features comprehensive learning based on the latest piloting techniques and drone emergency response in a variety of scenarios. Furthermore, the internship is a turning point in the professional career, as they will gain all the necessary knowledge to become an expert in the drone industry. The main objective of the program is that the specialist masters the practice of test flights, necessary for the development of air operations following the indications of the manufacturer's maintenance manual and current legislation, as well as the work procedures involved in each intervention, both flight and maintenance. All this, in order to train professionals intensively in the aerial scenario.

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If your objectives include mastering the different strategies for dealing with the causes and consequences of situations related to the remote pilot profession, you are in the perfect position to work on it"





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, proposing and applying prevention and protection measures, personal and collective, according to the applicable regulations in the work processes, to ensure safe environment



Specific Objectives

- ◆ Specify the legislative basis of the general and specific aeronautical environment in Spain, based on the reliability of the sources of information for its interpretation and application in different operational scenarios
- ◆ Specify the legislative basis of the generic and specific aeronautical environment in different countries in Latin America, based on the reliability of the sources of information for its interpretation and application in different operational scenarios
- ◆ Apply the knowledge acquired to professional flights, following safety criteria for people and goods
- ◆ Navigate the aircraft safely by hand, knowing the position of the aircraft at all times
- ◆ Differentiate the quality of the sources when gathering aeronautical meteorology information
- ◆ Acquire an integrated vision of aviation psychology and medicine
- ◆ Acquire an overview of the Operations Manual; and make it a particular Procedure Guide Observe it and communicate any possible improvements through the channel
- ◆ Be sensitized to record flight times and aircraft maintenance
- ◆ Identify the bands of frequency and know their main characteristics. Aeronautical bands of frequency
- ◆ 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





- ♦ Comprehend and implement emergency procedures Description and practice of the procedures Danger conditions Content of the messages of develop a critical capacity according to the legal procedures for the application of the legislation
- ♦ Acquire an overview of the design of a drone based on a concrete example
- ♦ Acquire sufficient skills to perform safe flights, integrating all phases of flight and demonstrating the relevance of design and technology
- ♦ Applying specific procedures to aerial filming
- ♦ Design and organize, for later use, the most specific modes of action in order to obtain the desired end product: images in the air and on the ground, both indoors and outdoors

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This Internship Program gives you the opportunity to apply on-site the normal and emergency procedures set out in the Operations Manual"

04

Educational Plan

The Drone Piloting Internship Program takes place during 3 weeks of extensive practice. These practices provide the specialists with instruction in the real scenario in which they will perform aerial assistance. This period is distributed in days of 8 consecutive hours and from Monday to Friday, with the support of a flight instructor attached to the practical center in question. In this way, the specialist will be able to carry out field work in situ, with state-of-the-art drones and with the endorsement of the tutors to develop flight simulations.

In this completely practical training proposal, the activities are aimed at the development and improvement of piloting skills and the approach to emergencies with drones in different scenarios. These skills are highly demanded in today's market, so professionals must have a specific specialization for the exercise of the activity.

TECH has designed the practical teaching so that the student performs his functions as a pilot from an active role, mastering the basic terms and legislative framework of longitude, latitude and aerial positioning. With this program, students will learn about the different atmospheric and meteorological phenomena that influence a flight, the legal framework for the transport of dangerous goods, as well as the theoretical and technical requirements for the radio operator qualification for remote pilots and the knowledge of the limitations that prevent the use of remotely piloted aircrafts.

The main objective of this proposal is to improve the performance of drone pilots and enable them to intervene in emergencies in difficult access scenarios, putting into practice their previous knowledge. In addition, the specialist will be accompanied by tutors versed in flight and the drone industry, who will be in charge of guiding and orienting the students in the real simulation practices. This is the most direct and effective way to master Drone Piloting, using innovative tools and in a professional setting.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other training partners to facilitate teamwork and multidisciplinary integration as transversal competencies for Drone Piloting (learning to be and learning to relate).

The procedures described below will be the basis of the practical part of the training, and their implementation will be subject to the center's own availability and workload, the proposed activities being the following:



Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology”



Module	Practical Activity
Navigation and map interpretation	Master the interpretation and use of aeronautical charts
	Know the different types and techniques of flight through piloting
	Manage dead reckoning (Dead Reckoning)
	Know in detail the equipment for RPA flights
	Know the height and distance limitations on the use of airspace
	Working on the use and limitations of GNSS
Weather management for pilotage	Mastering the use of GPS
	Analyze the reports of the different meteorological agencies
	Know the different atmospheric and meteorological phenomena that influence a flight
Operational and communications procedures	Manage weather forecasts and establish flight plans according to them
	Implementing the flight operational procedures correctly in practice
	Know the different operational and experimental scenarios
	Manage the constraints related to the space in which you operate
	Mastering flight time recording
	Manage the remote pilot suitability maintenance
	Know in detail all the procedures to become a qualified operator
	Define the theoretical and technical requirements for the radio operator qualification for remote pilots
	Perform radio transmission tasks, mastering radio communication processes
Conduct communications with ATC	
Dangerous goods transport and aviation, and use of in-flight engineering technology	Operate flights taking into account the limitations of operation with dangerous goods
	Working on the correct classification of different goods
	Know how to identify merchandise labeling and documentation
	Work on writing the correct report of events, accidents and incidents
	Mastering radioactive material legislation
	Interpret the three-view plan
	Knowing the limits of mass and centering
	Know in detail the correct abnormal and emergency procedures: engine failure, fire, glide, autorotation, emergency landing, etc.
	Mastering the assembly of equipment
Perform a software update	

05

Where Can I Do the Internship Program?

TECH has planned this practical stay in order to provide intensive and practical training to the students. In this case, the practical period is developed over 3 weeks in which the specialists will perform daily flight practices, preparing them to work operating drones in different highly demanding professional scenarios. This is a unique opportunity with guidance and technical instructions that guarantee a correct practice, both in the open and specific categories.


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Become a professional drone pilot, thanks to the guidance of flight instructors and flight practices during 3 weeks”





The student will be able to do this program at the following centers:



Engineering

Drone Prix

Country	City
Spain	Madrid

Address: Cam. de los Entreterminos, s/n,
28450, Collado Villalba, Madrid

Drone Prix, incorporates the latest drone technology
in its services.

Related internship programs:
Drone Piloting

06

General Conditions

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. In this way, the professional will not have to worry in case they have to face an unexpected situation and will be covered until the end of the practical program at the center.



General Conditions of the Internship Program

The general terms and conditions of the internship program agreement shall be as follows:

1. TUTOR: During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Internship Program shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

07 Certificate

This **Internship Program in Drone Piloting** contains the most comprehensive and up-to-date program in the professional and academic landscape.

After the student has passed the assessments, they will receive their corresponding Internship Program Certificate issued by TECH Technological University via tracked delivery*.

The diploma issued by TECH will state the score obtained in the test.

Program: **Internship Program in Drone Piloting**

Duration: **3 weeks**

Attendance: **Monday to Friday, shifts of 8 consecutive hours**

Total Hours: **120 h. of professional practice**



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