

Postgraduate Certificate Forensic Surveying



Postgraduate Certificate Forensic Surveying

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

Website: www.techtitute.com/us/engineering/postgraduate-certificate/forensic-surveying

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. 30

01

Introduction

The latest advances in the field of geomatics have allowed for the development of new professional profiles. Therefore, the expert surveyor begins to have great relevance in many areas, thanks to their work verifying cadastral data or deeds. However, this specialty requires professionals to constantly update their knowledge due to the new contributions made by the digital environment. For this reason, this program offers the professionals in this area the latest knowledge so that they can perform topographic surveys applying the most advanced techniques available. This will be done through an online teaching methodology that allows the student to decide how, when and where to study.





“

*Gain in-depth knowledge of the latest
Surveying techniques thanks to this
Postgraduate Certificate”*

Forensic Surveying has experienced great advances in recent years. The incorporation of new digital tools in the field of geomatics has allowed this professional profile to advance greatly, so it is currently on the rise. Therefore, their services are required in numerous administrative and civil proceedings, as they are able to prepare reports on cadastral and land registry matters, including land use planning.

Therefore, this Postgraduate Certificate in Forensic Surveying delves into topics such as cartographic projections, prism-less measurement, geolocation, photogrammetry, LIDAR techniques, geodesy, property registration, expert reports, and property-oriented topography.

All this, following an innovative 100% online learning system that adapts to the circumstances of the working professionals, as it allows them to choose the time and place to study. They will be guided at all times by a first-class teacher who knows this area to perfection, and they will enjoy multimedia resources of great educational value based on carrying out practical exercises.

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

- ◆ Practical cases presented by experts in Geomatics
- ◆ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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



Forensic Surveying is the present and the future of geomatics. Specialize now and gain access to numerous professional opportunities”

“

TECH's online teaching system will allow you to specialize in Forensic Surveying while developing your professional career without interruptions”

The program's teaching staff includes professionals from the 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 during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

Geomatics is undergoing continuous transformations, and this Postgraduate Certificate will keep you up to date with them.

Forensic Surveying is a new professional profile for which it is convenient to specialize, and this program gives you the opportunity to achieve it.



02

Objectives

The main objective of this Postgraduate Certificate in Forensic Surveying is to offer students the latest advances in this field of geometrics, in such a way that they can integrate the most innovative and effective expert tools into their daily professional practice. Therefore, upon finishing this program, they will be in the position to focus their career towards a currently growing field.



“

*Achieve your goal of staying updated
in forensic topographic assessments
with this high-level qualification”*



General Objectives

- ◆ Plan, structure, and develop expert reports
- ◆ Compile knowledge from different areas of topography and focus it on the forensic environment
- ◆ Establish the legislative framework in which forensic surveying operates
- ◆ Define forensic surveying as a branch of geomatics

“

Don't wait any longer; this Postgraduate Certificate is exactly what you've been looking for. Enroll now and access the latest developments in Forensic Surveying”





Specific Objectives

- ◆ Analyze the elements of property-oriented topography
- ◆ Examine the legislation and its scope of application depending on where the expert work is carried out
- ◆ Develop the concept of expert evidence
- ◆ Define the structure of an expert report
- ◆ Establish the requirements to be an expert witness
- ◆ Analyze the role and actions of an expert witness
- ◆ Identify the different actors in an expert procedure



Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”

03

Course Management

This Postgraduate Certificate in Forensic Surveying has a high-level teaching staff made up of active professionals who have a perfect knowledge of this complex area of geomatics. In this way, they will transmit to the students all the key aspects of this type of expertise, so that they can immediately integrate them into their work. They will therefore be able to work in this field once they have completed the program.



“

The best experts in Forensic Surveying transmit all their knowledge to you so that you can incorporate it into your work immediately”

Management



Mr. Puértolas Salañer, Ángel Manuel

- ◆ Full Stack Developer at Alkemy Enabling Evolution
- ◆ Application Developer in .NET Environment, Python Development, SQL Server Database Management, and Systems Administration at ASISPA
- ◆ Surveyor for the Study and Reconstruction of Roads and Access to Populations at the Ministry of Defense
- ◆ Surveyor for the Georeferencing of the Old Cadastral Records in the Province of Murcia at Geoinformación y Sistemas SL
- ◆ Web Management, Server Administration, and Development and Task Automation in Python at Milcom
- ◆ Application Development in .NET Environment, SQL Server Management, and Support for Proprietary Software at Ecomputer
- ◆ Technical Engineer in Topography from the Polytechnic University of Valencia
- ◆ Master's Degree in Cybersecurity from MF Business School and Camilo José Cela University



Teachers

Mr. Encinas Pérez, Daniel

- ◆ Head of the Technical and Topographic Office at the Environmental Center of Enusa Industrias Avanzadas
- ◆ Site Manager and Topographer at Desmontes y Excavaciones Ortigosa SA
- ◆ Production and Topography Manager at Epsa Internacional
- ◆ Topographic Survey for Administration of the Partial Plan of Mojón, Town Hall of Palazuelos de Eresma
- ◆ Master's Degree in Cartographic Geotechnologies Applied to Engineering and Architecture by USAL
- ◆ Bachelor's Degree in Geomatics and Topography Engineering from the USAL
- ◆ Higher Technician in Building and Civil Works Projects
- ◆ Higher Technician in Urban Planning Projects and Topographic Operations
- ◆ Professional RPAS Pilot (Issued by Aerocámaras - AESA)



Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04

Structure and Content

This Postgraduate Certificate in Forensic Surveying is structured into a specialized module where professionals can learn about the latest advancements in areas such as: total stations, prism-less measurement, orthometrics, geolocation, digital elevation models, property-oriented topography, the structure of an expert report, photogrammetry, and LIDAR techniques. In this way, they will be able to face the current challenges of the profession with the highest level of assurance.





“

The best specialized content in forensic surveying is here. Don't miss the opportunity to explore the forensic techniques of the future”

Module 1. Forensic Surveying

- 1.1. Classical Topography
 - 1.1.1. Total Station
 - 1.1.1.1. Station Setup
 - 1.1.1.2. Automatic Tracking Total Station
 - 1.1.1.3. Prismless Measurement
 - 1.1.2. Coordinate Transformation
 - 1.1.3. Topographic Methods
 - 1.1.3.1. Free Station Setup
 - 1.1.3.2. Distance Measurement
 - 1.1.3.3. Re-plotting
 - 1.1.3.4. Area Calculation
 - 1.1.3.5. Remote Height
- 1.2. Cartography
 - 1.2.1. Cartographic Projections
 - 1.2.2. UTM Projection
 - 1.2.3. UTM Coordinate System
- 1.3. Geodesy
 - 1.3.1. Geoid and Ellipsoid
 - 1.3.2. Datum
 - 1.3.3. Coordinate Systems
 - 1.3.4. Types of Elevations
 - 1.3.4.1. Geoid Height
 - 1.3.4.2. Ellipsoid
 - 1.3.4.3. Orthometric
 - 1.3.5. Geodetic Reference Systems
 - 1.3.6. Leveling Networks
- 1.4. Geopositioning
 - 1.4.1. Satellite Positioning
 - 1.4.2. Errors
 - 1.4.3. GPS
 - 1.4.4. GLONASS
 - 1.4.5. Galileo
 - 1.4.6. Positioning Methods
 - 1.4.6.1. Static
 - 1.4.6.2. Rapid Static
 - 1.4.6.3. RTK
 - 1.4.6.4. Real-Time
- 1.5. Photogrammetry and LIDAR Techniques
 - 1.5.1. Photogrammetry
 - 1.5.2. Digital Elevation Model
 - 1.5.3. LIDAR



“

All the transformations in the field of forensic surveying are now within your reach”

05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

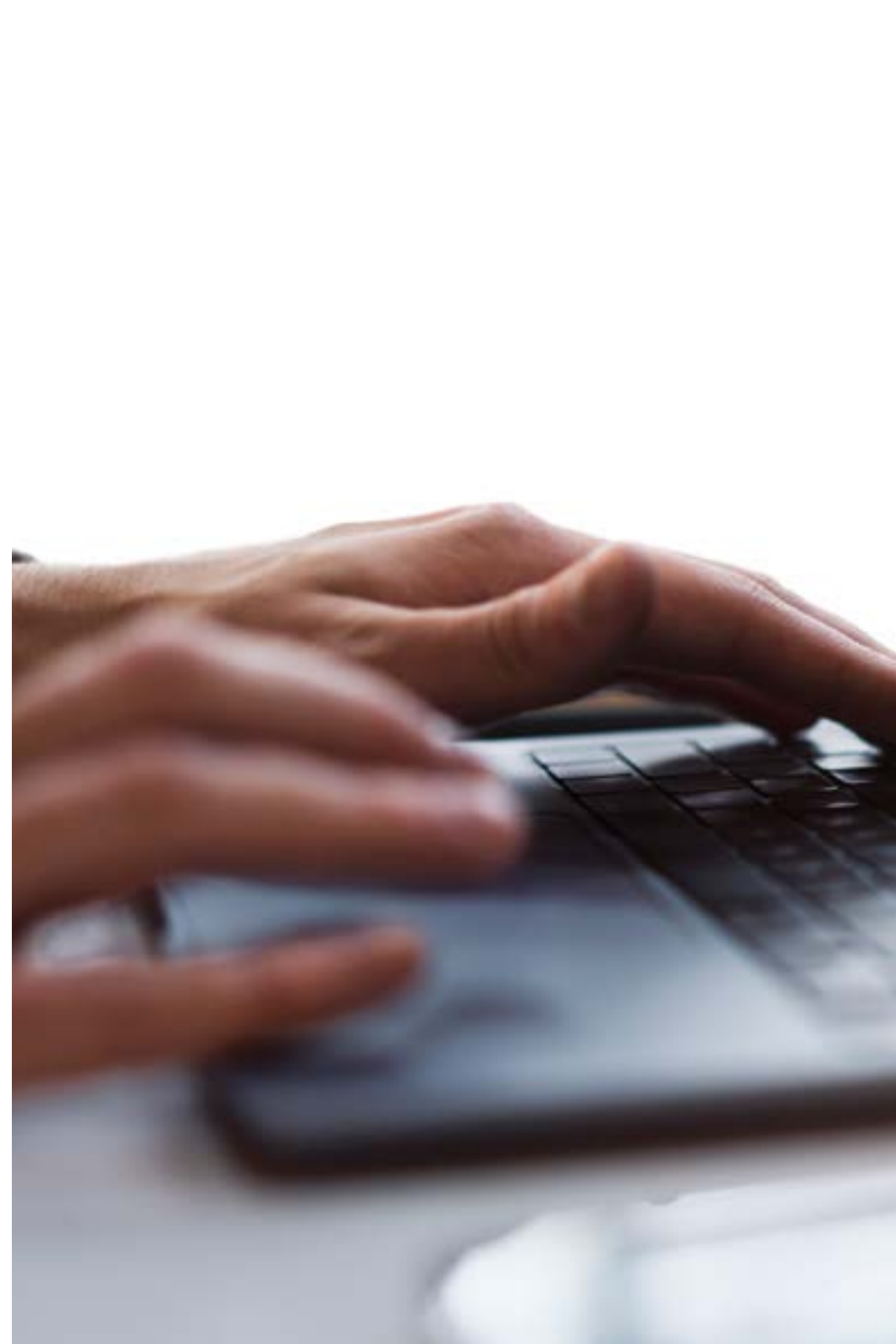
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

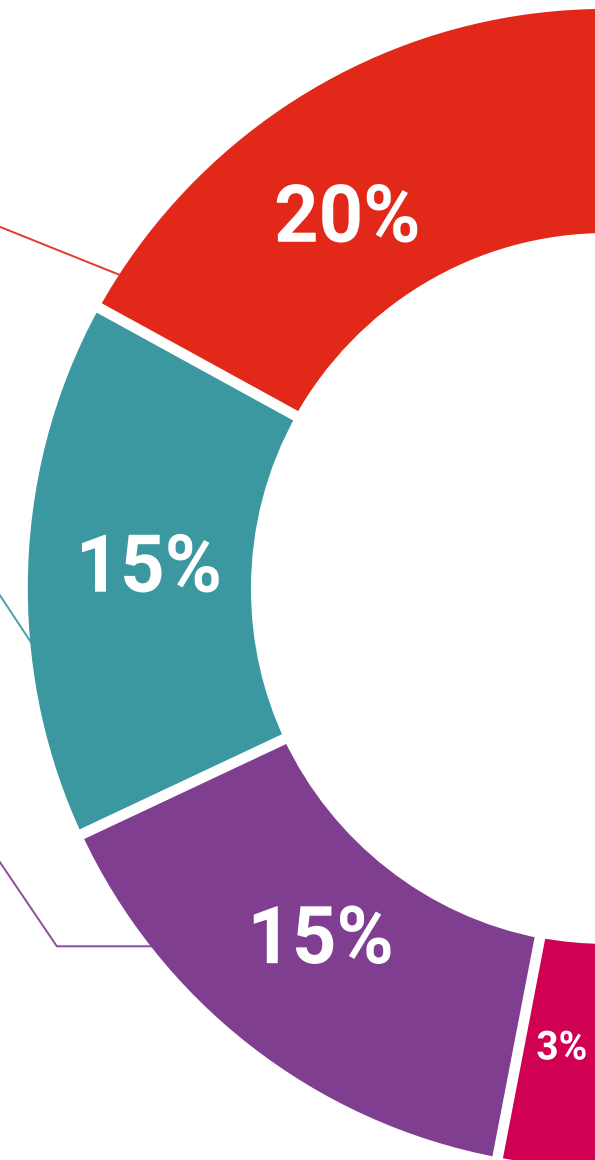
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

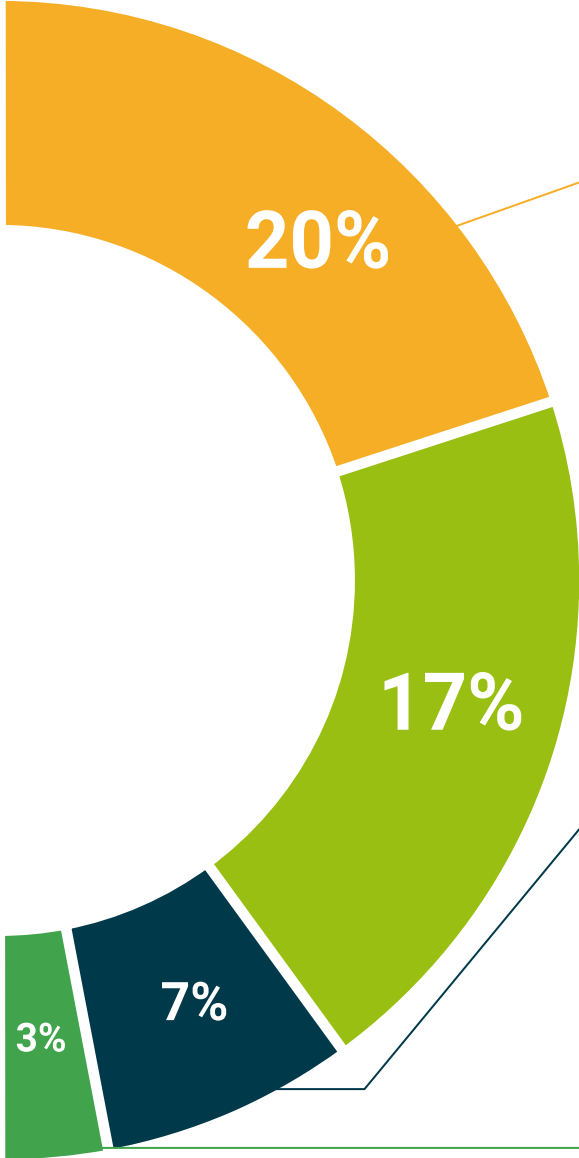
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



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 for future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.



06

Certificate

This Postgraduate Certificate in Forensic Surveying guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the 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 private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Forensic Surveying** 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.

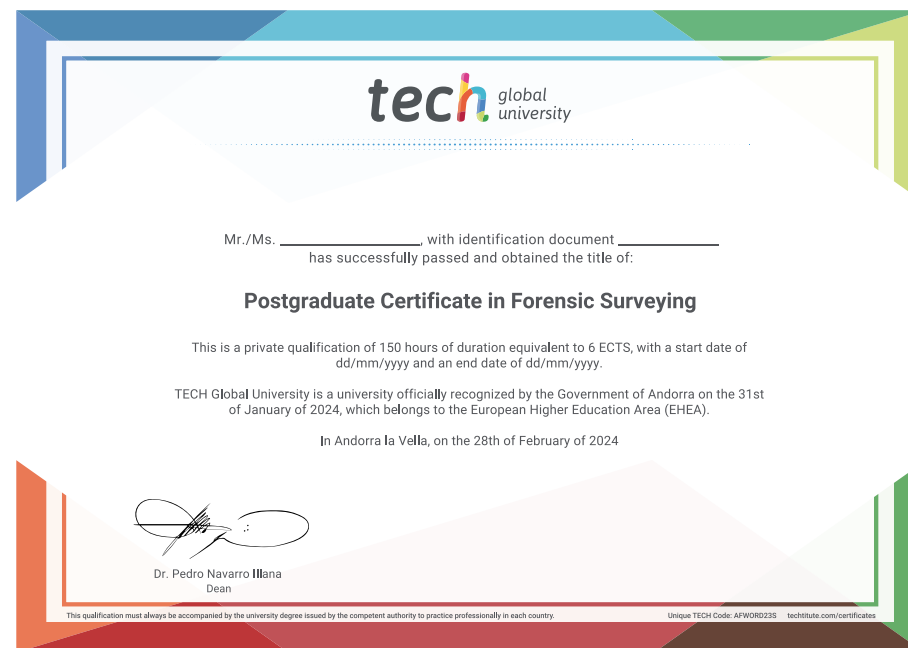
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Forensic Surveying**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



*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.



Postgraduate Certificate Forensic Surveying

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

Postgraduate Certificate Forensic Surveying

