Postgraduate Certificate

Economic and Legal Analysis of Photovoltaic Installations

tech global university

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Postgraduate Certificate
Economic and Legal Analysis of Photovoltaic Installations

- 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/economic-legal-analysis-photovoltaic-installations**

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01

Introduction

The adoption of renewable energies, in particular solar PV, has experienced significant growth over the last few years globally. This phenomenon has driven the need for engineering professionals to have a solid understanding of the economic and legislative aspects that influence both the development and operation of Photovoltaic Installations. Only then will experts be able to optimize the design and configuration of Photovoltaic Systems to maximize energy efficiency. In this scenario, TECH presents an avant-garde university program focused on the economic and legal aspects related to the installation of photovoltaic solar energy systems. In addition, this is taught entirely in a convenient 100% online modality. In addition, it is completely taught in a convenient 100% online modality.

Thanks to this 100% online Postgraduate Certificate, you will plan and manage Photovoltaic Installation projects from conception to implementation"

With the growing demand of companies to reduce carbon emissions and move towards a more sustainable energy matrix, Photovoltaic Installations have emerged as a strategic and scalable solution. Given this reality, engineers need to have a deep understanding of how economic aspects (such as capital costs or available subsidies), together with legislative or policy frameworks on energy issues, shape the adoption and development of solar PV in different countries.

In this context, TECH launches a pioneering and innovative Postgraduate Certificate in Economic and Legal Analysis of Photovoltaic Installations. The academic itinerary will address comprehensively the economic analysis of photovoltaic plants, taking into account key factors such as investment costs, economic viability indicators or residual value. Thanks to this, professionals will be able to assess the profitability and financial viability of implementing Photovoltaic Installations in specific locations. Likewise, the syllabus will delve into the tax aspects of the project, which will help graduates ensure legal compliance and promote responsible business practices.

On the other hand, one of the advantages of being part of this unique educational opportunity is based on the convenience and adaptability provided. TECH is a pioneer in the implementation of the Relearning pedagogical methodology, which provides teaching and multimedia content repeatedly to expand and improve the assimilation of concepts. All of this complemented with practical cases backed up by the best experts in the field. It is therefore the perfect opportunity for engineers to balance learning with their personal lives. In this sense, all that is required is that students have an electronic device to access the Virtual Campus and enjoy the most complete teaching materials on the educational market.

This **Postgraduate Certificate in Economic and Legal Analysis of Photovoltaic Installations** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in Photovoltaic Energy
- 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

You will reach your maximum potential as an engineer thanks to this program, which includes the most complete practical materials on the market"

You will delve into Guarantees and Security Deposits, which will allow you to properly plan the financial resources needed for a photovoltaic project"

Are you looking to incorporate into your practice the most innovative strategies to mitigate risks associated with photovoltaic systems? Achieve it with this program in only 180 hours.

TECH's Relearning methodology will allow you to incorporate the most complex concepts of the syllabus in a fast and flexible way.

The program's teaching staff includes professionals from the sector who bring to this program the experience of their work, in addition to recognized specialists from prestigious reference societies and 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 prepare for 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, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

Through this Postgraduate Certificate, engineers will have a comprehensive understanding of the economic and legal aspects surrounding the operation of photovoltaic systems. Likewise, professionals will develop advanced skills to assess the economic viability of Photovoltaic Installations. In line with this, graduates will be highly qualified to identify available incentive and subsidy programs. In turn, students will have a broad understanding of the risks associated with the installation of photovoltaic systems.

You will be able to assess the impact of energy policies on the development and operation of photovoltaic installations"

General Objectives

- Develop a specialized vision of the photovoltaic market and its lines of innovation
- Analyze the typology, components and advantages and disadvantages of all configurations and schemes of large photovoltaic plants
- Specify the typology, components and the advantages and disadvantages of all the configurations and schemes of self-consumption photovoltaic installations
- Examine the typology, components and advantages and disadvantages of all off-grid PV plant configurations and schemes
- Establish the typology, components and the advantages and disadvantages of hybridization of photovoltaic technology with other conventional and renewable generation technologies
- Establish the fundamentals of the operation of the components of the direct current part of the photovoltaic installations
- Understand all the properties of the components
- Establish the fundamentals of the operation of the components of the direct current part of the photovoltaic installations
- Understand all the properties of the components
- Characterize the solar resource on any site in the world
- Handle terrestrial and satellite databases
- Select optimal sites for photovoltaic systems
- Identify other factors and their influence on the photovoltaic installation
- Assess the profitability of investments, operation and maintenance activities and financing of photovoltaic projects
- Identify risks that may affect the viability of investments
- Manage PV projects
- Design and dimensioning of photovoltaic plants, including site selection, sizing of components and their coupling
- Estimate energy yields
- Monitor photovoltaic plants
- Manage health and safety
- Design and dimensioning of self-consumption photovoltaic installations, including site selection, sizing of components and their coupling
- Estimate energy yields
- Monitor photovoltaic installations
- Design and dimensioning of off-grid photovoltaic systems, including site selection, sizing of components and their coupling
- Estimate energy yields
- Monitor photovoltaic installations
- Analyze the potential of PVGIS, PVSYST and SAM software in the design and simulation of photovoltaic installations.
- Simulate, dimension and design photovoltaic installations using the following softwares: PVGIS, PVSYST and SAM
- Acquire skills in the assembly and commissioning of installations
- Develop specialized knowledge in the operation and preventive and corrective maintenance of the facilities

Specific Objectives

- Analyze, from an economic point of view, the economic viability in any phase of the project: investments, operation and maintenance and financing
- Be competent for the processing of any photovoltaic project before the different authorities, both in time and form, as well as its follow-up

This university program will put at your disposal a wide range of multimedia resources such as explanatory videos and infographics, allowing you to learn more dynamically"

03

Course Management

In its utmost to provide the most holistic and renewed university programs in the academic field, TECH carries out a rigorous process to form its teaching staff. For this Postgraduate Certificate, it brings together authentic references in the field of Economic and Legal Analysis of Photovoltaic Installations. These experts have an extensive professional background, which has allowed them to work in prestigious international entities. In this way, they have created top-quality teaching materials that will help engineers to optimize their daily practice considerably and improve their job prospects.

The teaching team of this university program is made up of renowned experts in Economic and Legal Analysis of Photovoltaic Installations"

Management

Dr. Blasco Chicano, Rodrigo

- Academic in Renewable Energy, Madrid
- Energy Consultant at JCM Bluenergy, Madrid
- PhD in Electronics from the University of Alcalá
- Specialist in Renewable Energy from the Complutense University of Madrid
- Master's Degree in Energy from the Complutense University of Madrid
- Degree in Physics from the Complutense University of Madrid

Professors

Mr. Martínez Fanals, Rubén

- Chief Financial Officer at REAL Infrastructure Capital Partners, United States
- *Product Marketing Manager* at Alstom Renewable Power
- Sales Engineer at Gamesa Eólica
- Account Manager at ThyssenKrupp Rothe Erde
- Executive *Program in Algorithmic* Trading (EPAT) by Quantinsti
- Certification in *Advanced Financial Modelling* by Full Stack Modeller
- Certification in *Essential Financial Modelling* by Gridlines
- Master's Degree in Renewable Energies by the University of Zaragoza
- Degree in Chemical Engineering from the University of Zaragoza
- Diploma in Business Administration and Management from Columbus IBS

04

Structure and Content

Through this university program, engineers will have a comprehensive understanding of the economic, financial and legal aspects surrounding the installation of photovoltaic systems. The syllabus will delve into the economic assessment of photovoltaic plants, looking at factors such as project cost structures, revenues or tax deductions for renewable investments.
In this way, graduates will design more efficient and profitable systems. In addition, the syllabus will delve into the administrative and environmental procedures that must be carried out in order for professionals to ensure that their projects scrupulously comply with all corresponding laws and regulations.

You will perform the most detailed economic analyses of photovoltaic projects, including cost-benefit assessments and return on investment studies”

Module 1. Economic, Administrative and Environmental Aspects of Photovoltaic Plants

1.1. Economic Analysis of Photovoltaic Plants
- 1.1.1. Economic Analysis of Investments
- 1.1.2. Economic Analysis of Operation and Maintenance
- 1.1.3. Economic Analysis of Financing

1.2. Project Cost Structures
- 1.2.1. Investment Costs
- 1.2.2. Replacement Costs
- 1.2.3. Operation and Maintenance Costs

1.3. Economic Feasibility Indicators
- 1.3.1. Technical Indicators. Performance Ratio
- 1.3.2. Economic Indicators
- 1.3.3. Estimation of Indicators

1.4. Project Income
- 1.4.1. Project Income
- 1.4.2. Financial Savings
- 1.4.3. Residual Value

1.5. Tax Aspects of the Project
- 1.5.1. Taxation of Electricity Generation
- 1.5.2. Taxation of Profits
- 1.5.3. Tax Deductions for Renewable Investments

1.6. Project Risks and Insurance
- 1.6.1. General Insurance: Investment, Equipment, Production
- 1.6.2. Guarantees and Security Deposits
- 1.6.3. Equipment and Production Guarantees in Contracts

1.7. Administrative Procedures (I): Public Administration
  1.7.1. Guarantees and Land Contracts
  1.7.2. Technical Report and/or Project
  1.7.3. Prior Technical and Environmental Authorizations
1.8. Administrative Procedures (II): Electricity Companies
  1.8.1. Prior Access and Connection Authorizations
  1.8.2. Start-up Authorizations
  1.8.3. Reviews and Inspections
1.9. Access and Connection to Electrical Grids
  1.9.1. Photovoltaic Plants
  1.9.2. Self-Consumption Installations
  1.9.3. Processing
1.10. Environmental Procedures
  1.10.1. International Environmental Law
  1.10.2. Protection of Birdlife in Electrical Power Grids
  1.10.3. Environmental Assessment and Corrective Measures

An academic program that will prepare you to overcome the challenges in Economic and Legal Analysis of Photovoltaic Installations. Enroll now and experience a leap in quality in your career as an engineer!

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

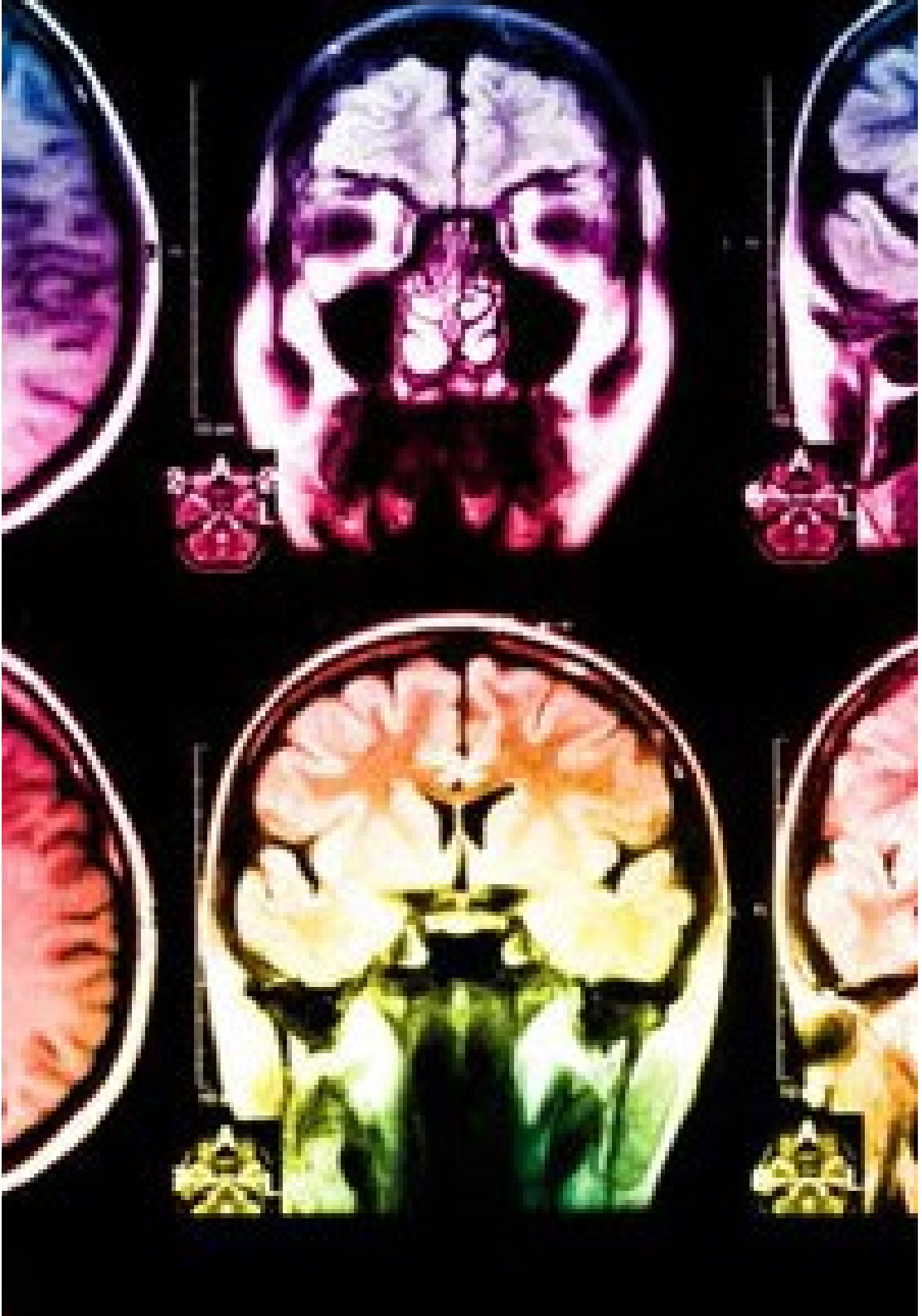
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

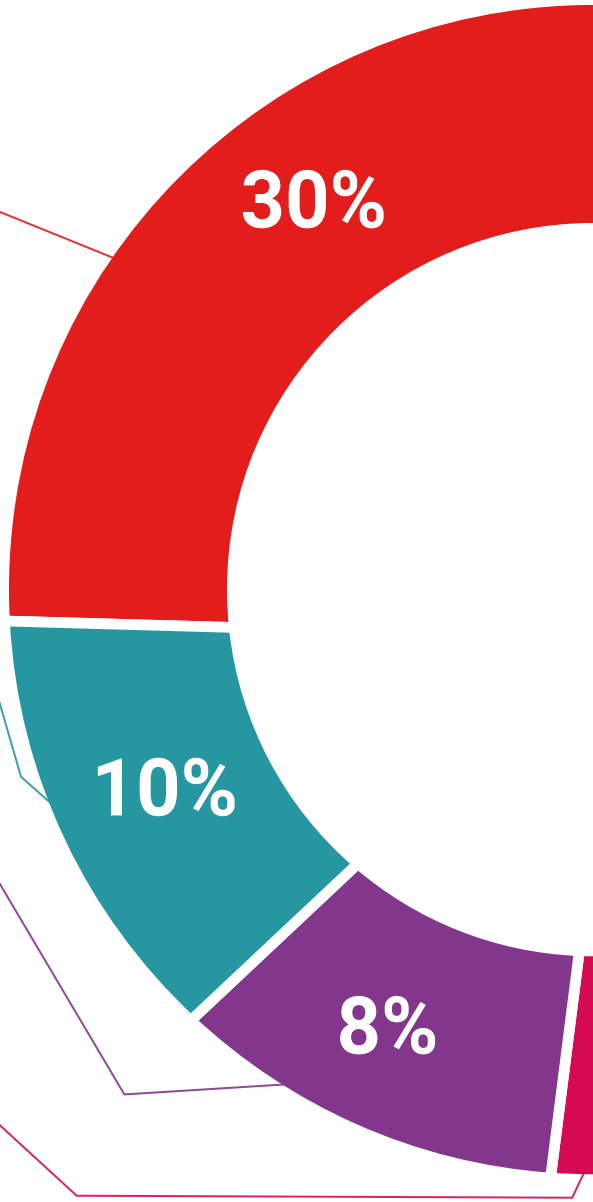
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

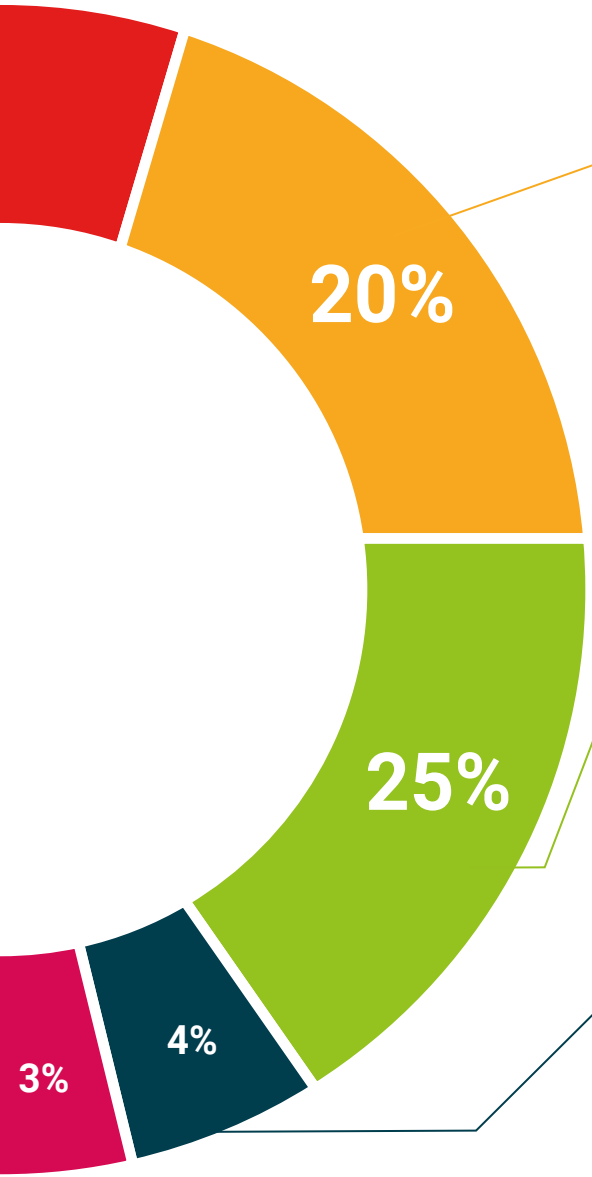
Practising Skills and Abilities

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 Economic and Legal Analysis of Photovoltaic Installations 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 private qualification will allow you to obtain a **Postgraduate Certificate in Economic and Legal Analysis of Photovoltaic Installations** 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 Economic and Legal Analysis of Photovoltaic Installations**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in Economic and Legal Analysis of Photovoltaic Installations

This is a private qualification 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
Dean

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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