Postgraduate Certificate
Industrial Safety

tech global university

tech global university

Postgraduate Certificate
Industrial Safety

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

Acceso web: **www.techtitute.com/us/engineering/postgraduate-certificate/industrial-safety**

Index

01 Introduction to the Program p. 4

02 Why Study at TECH? p. 8

03 Syllabus p. 12

04 Teaching Objectives p. 16

05 Study Methodology p. 20

06 Teaching Staff p. 30

07 Certificate p. 34

01

Introduction to the Program

Over the last few decades, industry has evolved significantly, driven by technological progress and globalization. However, despite the advances, the risks associated with working conditions in various industrial sectors continue to be a major concern in business and government management. That is why industry professionals will find in this TECH program an unparalleled academic opportunity that will equip them with the knowledge and tools necessary to manage risk situations and implement innovative solutions that protect both workers and organizational resources. All this through a fully online approach taught by a faculty of recognized experts in the field.

You will access a comprehensive 100% online program, with which you will develop advanced competencies in Industrial Risk Management"

Industrial Safety is a fundamental discipline in the management of occupational risks and the protection of both workers and the industrial environment as a whole. This field encompasses a wide variety of measures, regulations and techniques aimed at preventing accidents, reducing risks, and ensuring the health and well-being of employees in the work environment. Its importance has grown exponentially in recent decades, not only due to increased awareness of safety at work, but also because of the demands of an increasingly complex, automated and globalized industrial environment.

For this reason, TECH has designed a 100% online Postgraduate Certificate that offers a comprehensive preparation on the most common risks and hazards in the industry, the most effective methods for their prevention and the design of safety plans adapted to the needs of each organization. Throughout the program, key topics such as Safety in Working with Machinery, Control of Hazardous Substances, Fire Protection and Thermal Hazards, and Emergency Management and Incident Response, as well as Electrical Safety and the necessary protocols for working at heights will be addressed.

To reinforce these contents, the program is based on the innovative Relearning learning system, which consists of the repetition of the key concepts of the syllabus, thus guaranteeing a progressive and natural assimilation. In addition, TECH provides engineers with an online library containing a myriad of multimedia resources, including interactive summaries, case studies and specialized readings. In this way, professionals will enjoy dynamic learning that will raise their working horizons, allowing them to take a proactive role in the continuous improvement of safety in the workplace.

This **Postgraduate Certificate in Industrial Safety** contains the most comprehensive and up-to-date educational program on the market. Its most notable features are:

- The development of case studies presented by experts in Industrial Safety, with extensive experience in risk management and accident prevention
- The graphic, schematic and eminently practical content of the book provides scientific and practical information on those disciplines that are essential for professional practice
- Practical exercises where the process of 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 will master the most advanced tools to both assess and mitigate potential risks in work environments. And all in just 6 weeks!"

You'll train in a top-notch academic environment, with a practical and up-to-date approach that will allow you to tackle today's Industrial Safety challenges with confidence and professionalism"

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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.

You will be ready to apply safety protocols in industrial machinery and hazardous substances, ensuring their correct handling and storage to avoid accidents and improve operational efficiency.

You will have at your disposal advanced multimedia resources, such as explanatory videos and interactive summaries, which will allow you to expand your knowledge in a dynamic and flexible way.

02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.

Study at the largest online university in the world and ensure your professional success. The future begins at TECH”

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

03

Syllabus

The syllabus of this Postgraduate Certificate has been carefully designed to prepare engineers capable of identifying, assessing and managing the risks present in industrial environments, ensuring the safety of workers and the efficiency of processes. In this way, professionals will explore in depth key topics such as accident prevention models, safety in working with machinery and equipment, management of hazardous substances and emergency protocols for incidents.

You will become a highly skilled professional to ensure electrical safety in industrial environments, thanks to this innovative TECH program"

Module 1. Industrial Safety

1.1. Industry Safety
- 1.1.1. Industrial Safety
- 1.1.2. Objectives of Industrial Security
- 1.1.3. Severity in Industrial Safety

1.2. Risks and Hazards in Industries
- 1.2.1. Types of Hazards in the Industrial Environment
  - 1.2.1.1. Dynamic, Electrical, Chemical and Hygienic Hazards
- 1.2.2. Risk Factors
- 1.2.3. Hazard Identification Techniques

1.3. Occupational Accident Prevention
- 1.3.1. Accident Prevention Models
  - 1.3.1.1. Heinrich Models, Dominoes and Layers of Protection System
- 1.3.2. Preventive Methods in Industrial Safety
  - 1.3.2.1. Safety Barriers, Engineering Controls and Procedures
- 1.3.3. Root Cause Analysis (RCA) of Accidents and Near Misses: Techniques

1.4. Industrial Safety Planning
- 1.4.1. Stages of a Safety Management Plan
- 1.4.2. Safety Planning in Industry
- 1.4.3. International Industrial Safety Standards

1.5. Safety in Work with Machinery and Equipment
- 1.5.1. Types of Machinery and Associated Risks
  - 1.5.1.1. Heavy Equipment, Power Tools and Automation
- 1.5.2. Machine Protection and Access Control
  - 1.5.2.1. Lockout and Tagout Systems (LOTO) and Guards
- 1.5.3. Safe Maintenance of Equipment
  - 1.5.3.1. Preventive and Corrective Maintenance Practices to Avoid Incidents

1.6. Control of Hazardous Substances
- 1.6.1. Hazardous Substances in Industry
  - 1.6.1.1. Chemicals, Gases, Flammable Materials
- 1.6.2. Methods of Safe Storage and Handling of Substances
  - 1.6.2.1. Containment, Labeling and Transport
- 1.6.3. Spill or Leak Response Protocols
  - 1.6.3.1. Protective Equipment and Emergency Plans

1.7. Fire Protection and Thermal Hazards
- 1.7.1. Types of Fire and Extinguishing Methods
  - 1.7.1.1. Fire Classification. Appropriate Extinguishers
- 1.7.2. Protection Systems and Emergency Plans
  - 1.7.2.1. Detectors, Alarms, Sprinklers and Extinguishers
- 1.7.3. Management of Risks Associated with Thermal Contacts

1.8. Electrical Safety
- 1.8.1. Ohm's Law
- 1.8.2. Types of Electrical Hazards: Shocks, Electric Arc
- 1.8.3. Rules for Electrical Risk Management
- 1.8.4. Tools, Barriers and Controls

1.9. Work at Height and Dynamic Risks
- 1.9.1. Work at Height and Main Risks
- 1.9.2. Types of Risk Environments at Heights
- 1.9.3. Personal Protection Equipment (PPE) and Restriction for Working at Heights

1.10. Emergency Management and Incident Response Systems
- 1.10.1. Emergency Response Plans
  - 1.10.1.1. Design and Coordination of Actions for Critical Events
- 1.10.2. Response and First Aid Teams in Industry
  - 1.10.2.1. Training and Equipping of Teams
- 1.10.3. Post-Emergency Evaluation and Continuous Improvement
  - 1.10.3.1. Incident Learning and Protocol Adjustment

You will apply state-of-the-art prevention strategies to identify workplace accident hazards such as those arising from management system failures, human error or inadequate conditions in the work environment"

04

Teaching Objectives

This TECH university program provides engineers with the necessary competencies to effectively manage occupational hazards and ensure protection in industrial environments. Throughout the program, they will acquire key skills to identify and evaluate hazards, design and implement accident prevention models, and manage emergencies. In this way, engineers will be prepared to lead the implementation of Industrial Safety plans, optimizing worker protection and ensuring compliance with the highest safety standards.

You will achieve your professional aspirations through an avant-garde program, developed by experts based on the latest postulates in risk management"

General Objectives

- Incorporate the fundamental concepts and terminologies in industrial safety management
- Establish a solid conceptual framework that functions as a theoretical and practical foundation for students' professional development
- Develop skills to identify, classify and manage risks
- Understand the main types of risks existing in an industrial environment and identify the basic mechanisms to mitigate them

Develop a comprehensive vision of the fundamentals of Industrial Safety, which will serve to position you as a key professional in the protection of employees and the sustainability of operations"

Specific Objectives

- Understand the main types of risks existing in an industrial environment and identify the basic mechanisms to mitigate them
- Differentiate the concepts of risk, hazard and severity
- Identify and classify the different risk factors existing in the industry
- Analyze the concept of safety management plan, describe its fundamental phases and the main related international standards
- Develop the main types of risk in the industry and the main existing control, mitigation and prevention measures
- Identify the fundamental aspects to define an emergency management system

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.

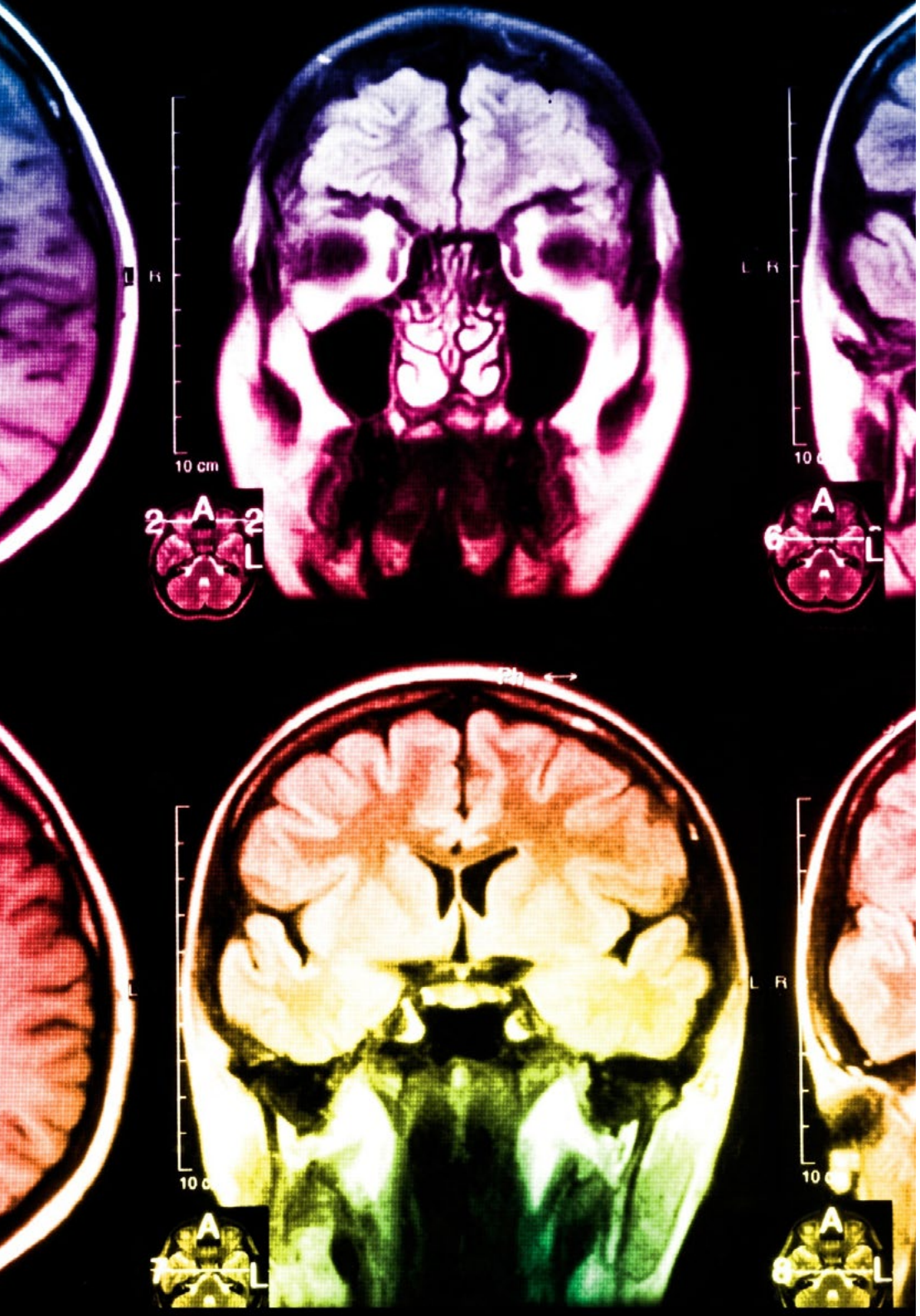
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

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.

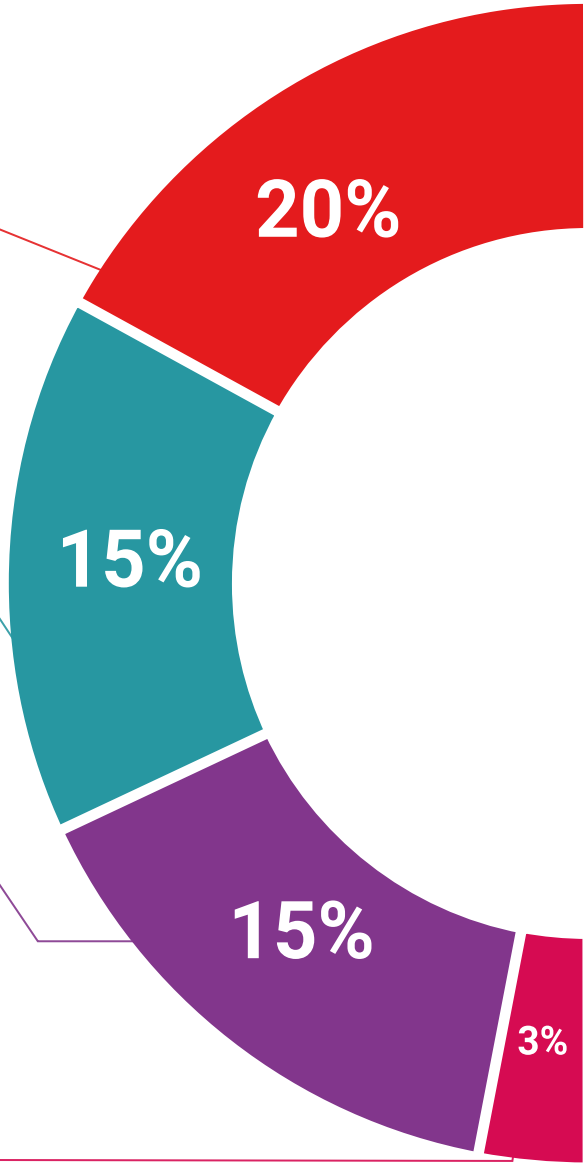
Interactive Summaries

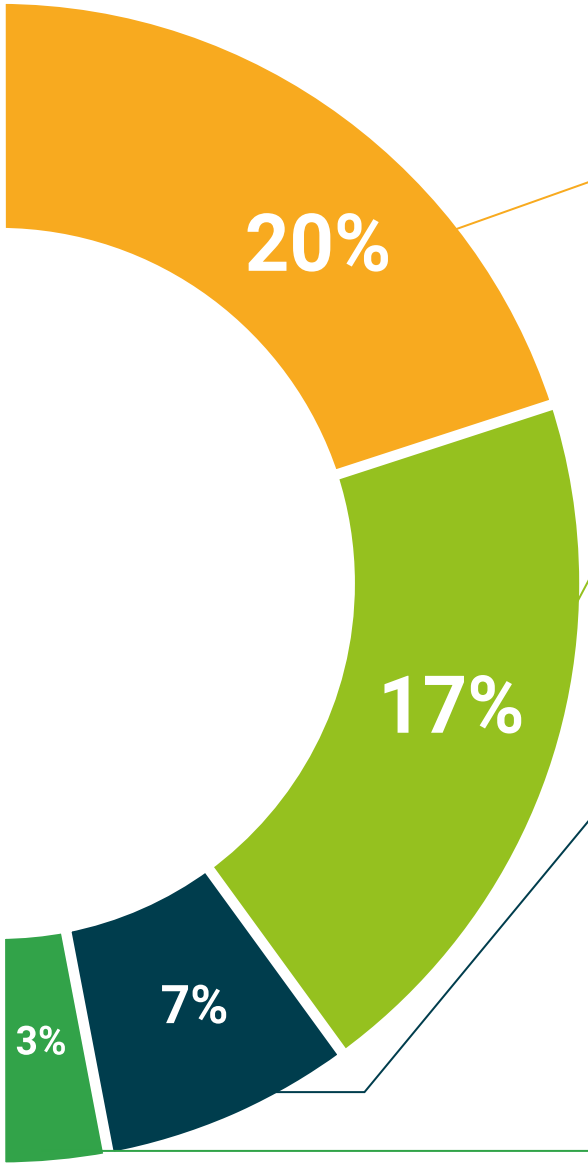
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Teaching Staff

The teaching staff of this TECH Postgraduate Certificate is made up of recognized experts in the field of occupational and industrial safety. These professionals provide solid academic preparation and extensive practical experience in risk management, implementation of international regulations and accident prevention in various industrial sectors. Through their didactic approach, teachers will guide engineers in the acquisition of key skills to successfully perform in the field of Industrial Safety, guaranteeing a quality program that integrates theory with professional practice.

You will have the support of a teaching team made up of experts in Industrial Safety, who will guide you to achieve a deep and updated understanding of the most relevant topics in the sector"

Management

Mr. Rettori Canali, Ignacio Esteban

- Product Safety Engineer at GE Vernova
- Sustainability Consultant at ALG-INDRA
- Product Safety Engineer at Alten
- HSE Data Analyst at MARS
- Logistics Shift Manager at Repsol YPF
- Environmental Analyst at Repsol YPF
- Environmental Specialist at the National Ministry of Environment
- Specialist in Energy Economics at the Polytechnic University of Catalonia
- Specialist in Renewable Energies and Electric Mobility, Polytechnic University of Catalonia
- Specialist in Energy Management from the National Technological University
- Specialist in Project Management, Liberty Foundation
- Specialist in Safety and Environment from the Catholic University of Argentina
- Degree in Environmental Engineering from the National University of Litoral

07

Certificate

This Postgraduate Certificate in Industrial Safety guarantees, in addition to the most rigorous and up-to-date program, access to an Postgraduate Certificate diploma 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 Industrial Safety** 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 Industrial Safety**

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 Industrial Safety

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.

tech global university

Postgraduate Certificate
Industrial Safety

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

Postgraduate Certificate
Industrial Safety

tech global university