Postgraduate Certificate
Contaminant Analysis and Treatment
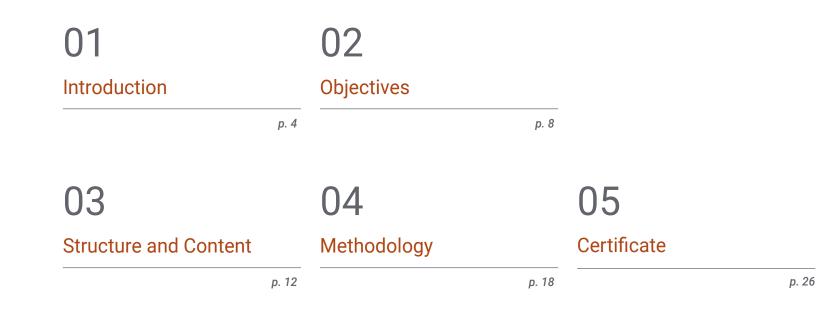
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Postgraduate Certificate
Contaminant Analysis and Treatment

» Modality: **online**
» Duration: **12 weeks**
» Certificate: **TECH Global University**
» Credits: **12 ECTS**
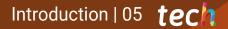» Schedule: **at your own pace**
» Exams: **online**

Website: **www.techtitute.com/us/engineering/postgraduate-certificate/contaminant-analysis-treatment**

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01

Introduction

Water pollution by pharmaceuticals, pesticides, perfluoroalkylated and polyfluoroalkylated substances (PFAS) or microplastics is currently one of the main environmental problems. Their effects on the environment and on people's health can be very serious, which is why various specialties are promoting studies and work to reduce or treat them. A task that requires advanced knowledge on the part of Environmental Engineering professionals, who can provide solutions to reverse this situation. For this reason, TECH has designed a program, which provides in just 12 weeks the most relevant information on the analysis of polluting elements, their approach and the technical solutions used for their elimination. All this, through multimedia teaching resources developed by specialists in this field.

A program with a global view on waste and toxic substances that will allow you to advance in the field of Contaminant Analysis and Treatment"

The World Organization of the United Nations warns that there are about 2 billion people in the world who consume water contaminated by feces. To this situation must be added the new contaminants detected, which come from water that has not been properly treated or that is contaminated by chemical products. Likewise, the scarcity of this vital resource for human beings due to climate change has led to the promotion of initiatives that seek to improve the quality and treatment of water, soil and air.

Given this reality, there is an unquestionable need for engineering professionals with the essential knowledge to implement projects or be part of companies that require profiles capable of eliminating products that are harmful to humans or the environment. That is why this Postgraduate Certificate in Contaminant Analysis and Treatment was created, taught exclusively online, and which will offer students the most advanced knowledge in this field.

A university program that will take you to deepen over 12 weeks in the bases that support the Environmental Engineering, the approach of the pollutants detected in water, soils or the processes of adsorption and absorption of substances. The summary videos, detailed videos and case studies provided by the specialists, which are part of this program, will serve to advance in a much more dynamic and enjoyable way through this content.

TECH has thus created a university education that is at the academic forefront and that will allow the engineers to progress in their professional career. This will be possible, moreover, thanks to a program that students can access whenever they want, from any electronic device with Internet access.

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

- The development of case studies presented by experts of Environmental Engineering
- The graphic, schematic and practical contents of the book provide technical and practical information on those disciplines that are essential for professional practice
- Practical exercises where 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
- Availability to access content from any fixed or portable device with Internet connection

This Postgraduate Certificate will teach you the challenge of eliminating microplastics from the seas, rivers and soils of the planet"

This Postgraduate Certificate will allow you to go deeper at any time of the day into the most effective solutions found so far to eliminate water pollution"

Learn about the latest soil decontamination techniques used by Environmental Engineering.

Advance your professional career with a program that will allow you to perfect your knowledge of the Urban Solid Waste problem.

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.

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.

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Objectives

The engineering professionals who immerses themselves in this university program will obtain a broad knowledge of the effect of pollutants on the environment, the analysis of the substances that cause them, as well as their treatment. For this purpose, the most current pedagogical tools in the academic field are available. In addition, the case studies provided by specialists will bring you closer to real situations whose methods you will be able to integrate in your daily work performance.

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This academic option will allow you to determine the environmental impact generated by contaminants in soil and water"

General Objectives

- Approach the use of environmental and sustainability indicators as a tool to evaluate the state of a system
- Assess the environmental impact of projects, plans and programs
- Know basic models of pollutant dispersion and understand the functioning of pollution control networks
- Master the techniques for the treatment of solid and liquid samples for the analysis of organic compounds

"

With this program, you will employ the most effective and innovative strategies for the control of contaminating residues"

Specific Objectives

- Plan and develop environmental projects with a transdisciplinary approach
- Integrate in work teams that develop professional tasks, which include professors and researchers in the environmental field
- Analyze, manage and conserve the environment and associated resources in natural, rural or urban environments, as well as design and develop land management plans and projects
- Elaborate, implement and maintain environmental management systems in the company, and know, analyze and prevent environmental health risks
- Understand pollutant treatment methods and control strategies applicable in each case
- Know and understand the preventive or corrective technologies for water and soil pollution
- Design systems for physical and chemical purification of gaseous emissions
- Be able to use information from various sources on an applied topic, interpret it appropriately, draw meaningful conclusions and present them publicly
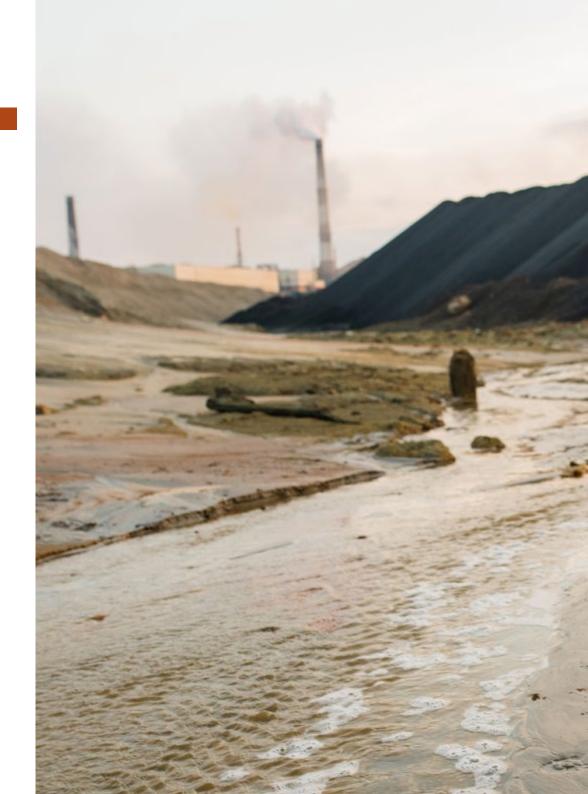
03

Structure and Content

TECH has designed a program designed to offer students the most advanced knowledge on the Contaminant Analysis and Treatment. Thus, in the course of this online program, the graduates will obtain the most comprehensive and relevant information on analytical chemistry, the instruments and techniques most commonly used for the detection of residues, as well as the different methods of control and elimination of toxic substances. All this, in addition, with a Relearning system, which will allow you to reduce the long hours of study so frequent in other teachings.

A qualification that will show you the latest techniques to deal with the treatment of waste derived from medical activity"

Module 1. Contaminant Analysis

Module 2. Treatment of Environmental Pollution

04

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.

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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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

20%

25%

4%

3%

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.

05
Certificate

The Postgraduate Certificate in Contaminant Analysis and Treatment guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This program will allow you to obtain your **Postgraduate Certificate in Contaminant Analysis and Treatment** 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** title 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 Contaminant Analysis and Treatment**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**

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

Postgraduate Certificate in Contaminant Analysis and Treatment

This is a program of 360 hours of duration equivalent to 12 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
Rector

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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