

# Postgraduate Certificate Contaminant Treatment





## Postgraduate Certificate Contaminant Treatment

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/in/engineering/postgraduate-certificate/contaminant-treatment](http://www.techtitute.com/in/engineering/postgraduate-certificate/contaminant-treatment)

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# 01

# Introduction

Thanks to the research carried out by the scientific community and the application of new technologies, progress has been made in the discovery of alternative techniques and methods for the treatment of contaminating residues. However, some of the most persistent PFAS present in textiles, paper and packaging materials continue to encounter difficulties. In this scenario, the work of the engineering professionals is key, given their multidisciplinary vision and technical knowledge. In order to complement this, TECH has designed this 100% online program, which offers the graduate advanced learning on the treatments used for waste treatment, water or soil decontamination. All this, in addition, with the *Relearning* method, which will allow you to reduce the long hours of study.





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*A 100% online Postgraduate Certificate,  
flexible, that adapts to professionals who  
wish to balance quality education with  
their personal responsibilities”*

Perfluoroalkylated and polyfluorinated substances (PFASs) are still a real challenge for scientists today, who are looking for solutions to eliminate them because of their serious effects on human health. However, in this decontamination work, the techniques and methods used have been improved, which is an important step forward in environmental protection and conservation.

The continuous studies and advances in this field mean that the engineering professionals must be constantly updating their knowledge in order to provide the most optimal multidisciplinary projects and solutions from their approach. To contribute to this, TECH has created this Postgraduate Certificate in Contaminant Treatment, in which the graduate will achieve in just 6 weeks to reach the necessary learning in this field and progress in their career.

A program that goes into environmental contamination from the beginning, to later delve into each of the problems and solutions achieved to treat air, water or soil affected by toxic substances. Likewise, thanks to multimedia resources, you will be able to delve in a much more dynamic way into urban waste management, landfills and the debate on microplastics.

All this in a 100% online educational format that you can conveniently access whenever and wherever you want. You only need an electronic device (computer, tablet or cell phone) with an Internet connection to access, at any time, to the syllabus hosted on the virtual platform. Likewise, students have the freedom to distribute the teaching load, which gives greater flexibility to obtain this Postgraduate Certificate.

This **Postgraduate Certificate in Contaminant 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
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Microplastics have become the problem of the 21st century. Enter the current debate with this Postgraduate Certificate”*

“

*Thanks to TECH you will receive the intensive and advanced learning you are looking for on Contaminant Treatment”*

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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Take a closer look at the current approach to medical waste from your tablet or computer.*

*Do you want to contribute and provide technical solutions to urban waste management? With this program you will get the knowledge you need.*



# 02

# Objectives

The multimedia resources and case studies developed by the specialized teaching team that teaches this program will be a great contribution of knowledge for the students who take it. In this way, at the end of the 150 teaching hours, students will have obtained the necessary techniques and tools to be able to plan water decontamination projects or to deal with the treatment of contaminants in the soil or air.







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*With this Postgraduate Certificate you will take a step further in your projects oriented to air decontamination. Enroll now”*



## General Objectives

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- ◆ Acquire knowledge of basic models of pollutant dispersion
- ◆ Understand the functioning of contamination control networks
- ◆ Obtain a global vision of water and soil contamination problems
- ◆ Approach the treatment of contaminants from a scientific-technical point of view

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*With this program, you will be aware of the advances made in water treatment and the corrective measures currently used”*





## Specific Objectives

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- ◆ Understand contaminant treatment methods and control strategies applicable in each case
- ◆ Know and understand the preventive or corrective technologies for water and soil contamination
- ◆ 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

The expert teaching team that is part of this Postgraduate Certificate has developed a syllabus in which the main concepts of environmental contamination and the current existing problems converge. In this way, after a historical tour, students will learn about contamination and the solutions achieved from science and with direct application in the field of engineering. For this purpose, video summaries, detailed videos, diagrams or complementary readings are available at any time of the day.



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*You have at your disposal 24 hours a day,  
the most innovative educational tools for  
university teaching”*

## Module 1. Treatment of Environmental Contamination

- 1.1. Environmental Contamination
  - 1.1.1. Introduction to the Concept of Contamination
  - 1.1.2. History of Environmental Contamination
  - 1.1.3. Current Environmental Issues
- 1.2. Air Pollution
  - 1.2.1. Introduction to Air Pollution
  - 1.2.2. Air Pollution Problems
  - 1.2.3. Solutions to Air Pollution
- 1.3. Soil Pollution
  - 1.3.1. Introduction to Soil Pollution
  - 1.3.2. Soil Pollution Problems
  - 1.3.3. Solutions to Soil Pollution
- 1.4. Water Pollution
  - 1.4.1. Introduction to Water Pollution
  - 1.4.2. Ocean Pollution
  - 1.4.3. River and Lake Pollution
- 1.5. Soil Decontamination
  - 1.5.1. Introduction
  - 1.5.2. Soil Decontamination Techniques
  - 1.5.3. Results of Soil Decontamination Techniques
- 1.6. Water Decontamination
  - 1.6.1. Water Potabilization
  - 1.6.2. Water Purification
  - 1.6.3. Results of Water Decontamination



- 1.7. Solid Waste
  - 1.7.1. Introduction to the USW Problem
  - 1.7.2. Concept of Solid Urban Waste
  - 1.7.3. Types of USW
- 1.8. USW Management
  - 1.8.1. Landfills and Collection System
  - 1.8.2. Recycling
  - 1.8.3. Other Management Techniques
- 1.9. Dangerous Waste
  - 1.9.1. Introduction
  - 1.9.2. Radioactive Waste
  - 1.9.3. Waste from Medical Activity
- 1.10. New Environmental Problems: The Impact of Microplastics
  - 1.10.1. What Is Plastic?
  - 1.10.2. Plastic and Recycling
  - 1.10.3. Microplastics and their Interaction with the Environment
  - 1.10.4. Brief Review of the MP Problem



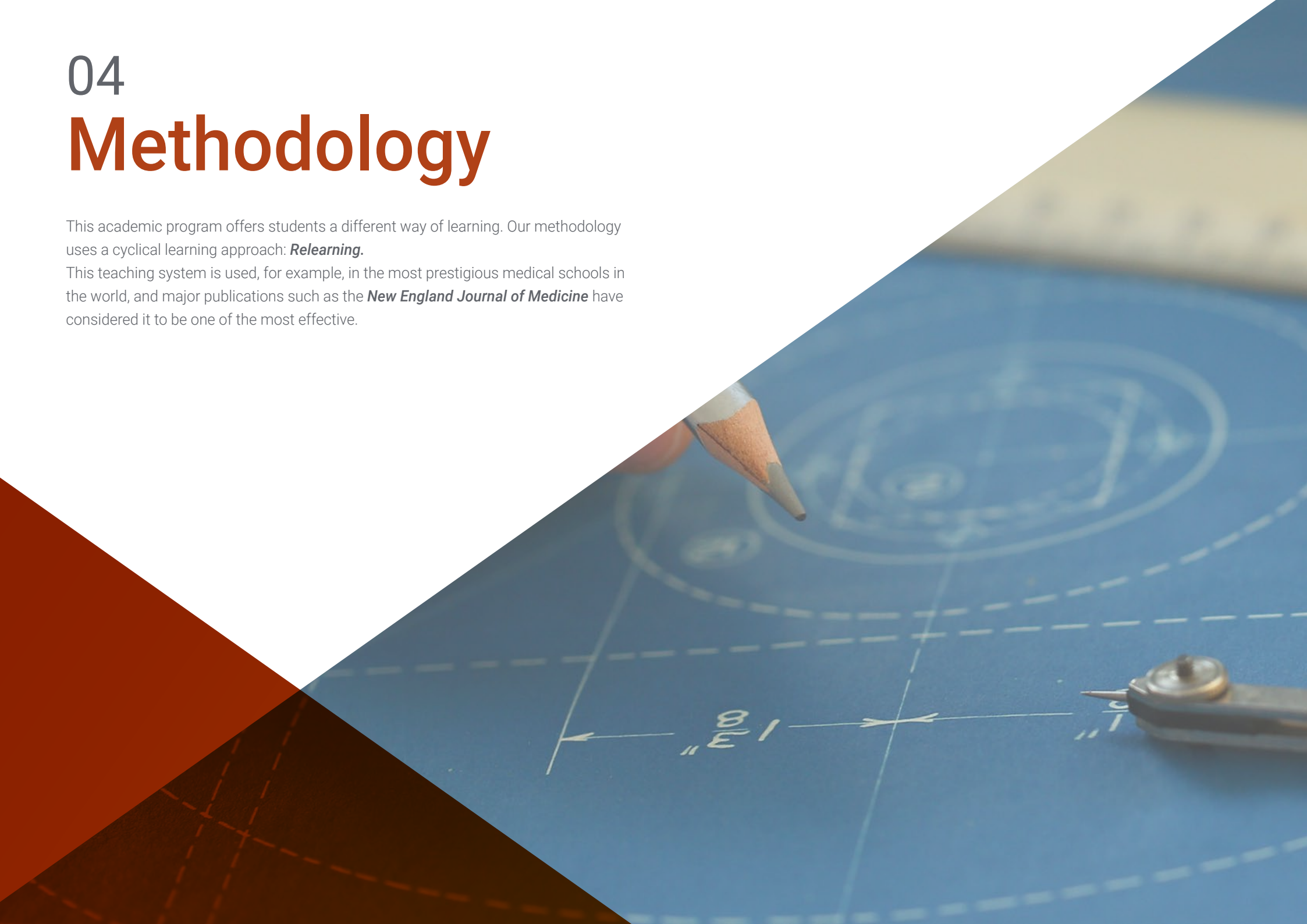
*Enroll now in a Postgraduate Certificate that will allow you to find the perfect solutions for the treatment of contaminants in soils"*

# 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.

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*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.



05

# Certificate

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





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*Successfully complete this program and receive your Postgraduate Certificate without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in Contaminant Treatment** contains the most complete and up-to-date scientific program on the market.

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

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Contaminant Treatment**

Official N° of hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development languages  
virtual classroom



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