

Postgraduate Certificate Environmental Public Health





Postgraduate Certificate Environmental Public Health

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/environmental-public-health

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 18

05

Methodology

p. 22

06

Certificate

p. 30

01

Introduction

Environmental Public Health is crucial to global well-being, as it addresses the links between nature and human health. It is estimated that 23% of premature deaths can be attributed to modifiable factors, such as air, water and exposure to toxic chemicals. These not only affect people physically, but also have a significant impact on the psyche and the cognitive development, especially in vulnerable populations such as children and the elderly. TECH offers specialists the opportunity to get up to date on assessment tools and strategies to bring about significant changes in this medical area. For this purpose, a complete syllabus and an innovative 100% online methodology are provided.





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Thanks to this TECH program, you will deepen in methods of environmental management of legionellosis, as well as chemical risk at an international level”

The growing evidence of the correlation between health problems and environmental factors has favored the growth of the area of Environmental Public Health. As industrialization and urbanization advance, challenges such as air and water pollution, climate change and exposure to toxic chemicals are increasing. In addition, globalization

and changes in land use have facilitated the spread of infectious diseases. It is in this sense that this TECH university program is born, with the aim of giving doctors a deep and comprehensive vision of this problem.

Therefore, they will be able to update their knowledge, preparing themselves to face the challenges that may arise.

In this program, students will delve into water quality control methods, as well as pollution prevention measures. Sources such as heavy metals, bacteria and emerging chemicals pose significant health risks. They will also focus on international chemical risk management, hazard classification and its communication through the labeling of safety data sheets. In addition, they will be able to acquire competencies for the evaluation, authorization and restriction of chemical substances and mixtures.

Moreover, graduates will deepen their knowledge of environmental management of vector-borne diseases, focusing on the processes of identification, control and prevention. At the same time, they will acquire competencies for the implementation of comprehensive strategies to reduce the presence and impact and therefore protect communities from diseases such as dengue, malaria and Zika.

In turn, they will be able to specialize through this 100% online program, from anywhere, through multimedia and interactive material.

In addition, they will benefit from the innovative and revolutionary Relearning methodology, which combines the highest pedagogical rigor, the highest academic demands and the most advanced technology.

This **Postgraduate Certificate in Environmental Public Health** 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 Public Health and Health Management
- ♦ 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



Access the educational content of this program from the electronic device with an Internet connection of your choice"

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Take advantage of an innovative 100% online methodology, which gives you the possibility to specialize at your own pace, without schedules and from anywhere”

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 and experienced experts.

Specialize in Environmental Public Health through an exhaustive syllabus, complementary readings and detailed videos.

You will analyze the influence of climate change on health and delve into methods of action to address this problem.



02 Objectives

This TECH program is based on the most important and most affected aspects in the field of Environmental Public Health. Through the syllabus, students acquire the necessary skills to develop a successful medical career in this field and update their knowledge, analyzing the latest advances. Likewise, thanks to this program, graduates identify the dangers derived from the use of recreational waters, as well as the contaminants used in drinking water. At the same time, the syllabus delves into preventive measures to avoid the conditions that favor the appearance and dispersion of bacteria such as Legionella.





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It comprehensively masters the complex concepts addressed in this program through the revolutionary Relearning methodology, based on the reiteration of concepts for their internalization”



General Objectives

- ♦ Develop a broad and comprehensive conceptual framework of the situation, challenges and needs of Public Health in the 21st century
- ♦ Examine the international and global framework of Public Health policies
- ♦ Determine the key factors for a correct communication in health crisis: crisis communication and communication crisis
- ♦ Identify the theoretical and methodological framework for evaluation in Public Health
- ♦ Identify the steps to be followed for disease assessment using epidemiological data
- ♦ Compile the research methodology related to disease surveillance
- ♦ Identify the main risk and protective factors in communicable and non-communicable diseases
- ♦ Analyze the importance of quality assessment of intervention studies
- ♦ Develop the fundamentals of clinical epidemiology, measurement of frequency and distribution of diseases
- ♦ Critically evaluate the efficacy and effectiveness of clinical interventions, pharmacological treatments, surgical interventions and prevention strategies
- ♦ Fundamentals of the principles of the epidemiological method
- ♦ Fundamentals of the principles of health promotion, social determinants of health, health-related behavioral theories, and strategies to promote healthy lifestyles and environments
- ♦ Analyze the main health risks for different vulnerable groups
- ♦ Implement a holistic and integrative vision in the impact assessment of environmental risks on health protection



Update your knowledge and acquire a deep understanding of the most relevant concepts of Environmental Public Health, thanks to the analysis of real cases elaborated by experts"



Specific Objectives

- ♦ Substantiate the interrelationship of health with its environmental determinants, to apply cross-cutting approaches, such as One Health
- ♦ Analyze the most significant risks of contaminants in drinking water and to establish the fundamental measures to ensure their contribution to the population
- ♦ Identify the hazards arising from the use of recreational waters and analyze the preventive measures necessary for the safe use of recreational waters
- ♦ Examine the main preventive measures to avoid the conditions that favor the colonization, multiplication and dispersion of Legionella
- ♦ Substantiate the risk and impact of vectors and the diseases they transmit, in order to develop and establish control strategies and means of control
- ♦ Analyze the exposure to natural radioactivity, specifying actions to reduce exposure to radon

03

Course Management

This program has a team of highly qualified teachers with extensive experience in the health field and in the investigation of the environmental impact on public health. These professionals offer TECH students a comprehensive vision of this area of knowledge. To do so, they provide them with the best academic material, multimedia resources and complementary readings, which bring together the most cutting-edge knowledge. In addition, these specialists accompany the graduates in the analysis of real case studies based on the most relevant concepts to provide them with excellent specialization.



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You will have at your disposal a teaching staff of excellence, which includes true experts in the evaluation and promotion of Public Health indicators”

Management



Ms. Ruiz Redondo, Julia María

- ◆ Coordinator of the National Working Group on Public Health 2.0 in the SEMG
- ◆ Coordinator of the General Directorate of Public Health in the Ministry of Health of Castilla-La Mancha
- ◆ Coordinator of the Regional Advisory Group on Immunization at the Regional Ministry of Health of Castilla-La Mancha
- ◆ Nurse Inspector in the Management of Coordination and Inspection of Castilla-La Mancha in the SESCAM
- ◆ Nurse of Specialized Care in the Hospital Emergency Area at the General Hospital of Tomelloso
- ◆ Master's Degree in Medical Management and Clinical Management by the UNED, ISCIII, National School of Health
- ◆ Master's Degree in Vaccines from the Catholic University of San Antonio de Murcia
- ◆ Master's Degree in Specialized Emergency Nursing Care, Critical Patient Area and Post-Anesthesia Care by the University of Valencia
- ◆ Master's Degree in Nursing Services Management from the UNED
- ◆ Senior Healthcare Management Program from San Telmo Business School
- ◆ Graduate in Nursing from the Catholic University of Avila
- ◆ Diploma in Nursing from the University of Jaén

Professors

Dr. Montero Rubio, Juan Carlos

- ♦ Head of Section of Clinical and Environmental Microbiology at the Institute of Health Sciences, Castilla-La Mancha
- ♦ Doctor in the Department of Preventive Medicine and Public Health, Immunology and Medical Microbiology, Rey Juan Carlos University
- ♦ Master's Degree in Public Health from the University Center of Public Health of the Autonomous University of Madrid
- ♦ Master's Degree in Environmental Management from the Institute of Ecological Research of Malaga, Open International University
- ♦ Graduate in Biological Sciences from the Complutense University of Madrid

Mr. Gago Gutiérrez, Roberto

- ♦ Inspector of Environmental Health in the Official Pharmaceutical Services, Ávila
- ♦ Head of the Physical and Chemical Risk Assessment Section at the Environmental Health Service of the Junta de Castilla y León
- ♦ Food Safety Inspector in the Official Pharmaceutical Services, Ávila
- ♦ Assistant Pharmacist in Pharmacy Office
- ♦ University Expert in Pharmaceutical Marketing, UNED
- ♦ Degree in Pharmacy from the University of Salamanca

Dr. Columé Díaz, Almudena

- ♦ Official Pharmacist of Public Health in the Regional Government of Castilla-La Mancha
- ♦ Member of the Research Group Specialized in the Automation and Miniaturization of Analytical Techniques at the University of Córdoba
- ♦ PhD in Chemistry from the University of Cordoba
- ♦ Degree in Pharmacy from the University of Seville
- ♦ Degree in Food Science and Technology from the University of Córdoba

Ms. González Gascón y Marín, María Almudena

- ♦ Official Pharmacist of the Regional Government of Castilla-La Mancha
- ♦ First Prize to the "Best Communication" of the Spanish Society of Environmental Health for the article "Ochratoxin A and residues of phytosanitary products in wines produced in the health districts of La Roda and Villarrobledo (Albacete)"
- ♦ Graduate in Pharmacy from the Complutense University of Madrid
- ♦ Diploma in Advanced Studies in Preventive Medicine and Public Health from the Complutense University of Madrid
- ♦ Collaboration grant at the European Food Safety Authority

Ms. Martínez Domínguez, María Inmaculada

- ♦ Civil Servant of the Superior Body of Chemistry in the Board of Communities of Castilla-La Mancha
- ♦ Consultant in the private sector, especially in activities related to food safety and HACCP system development and implementation
- ♦ Master's Degree in Environmental Management from Training and Employment Institute
- ♦ Degree in Chemistry from the University of Castilla-La Mancha
- ♦ Degree in Food Science and Technology from the University of Castilla-La Mancha
- ♦ Diploma in Public Health from the National School of Health

04

Structure and Content

TECH has an exhaustive syllabus in this program, taking into account the proposals required by the teaching team, as well as the specificities of the environmental field and its influence on Public Health. All this, with the aim of providing medical professionals with a deep and updated knowledge. Likewise, this program will delve, among other aspects, into sources of water pollution and its health risks, as well as monitoring and control of physical pollution and natural radioactivity.



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With this program you will analyze the pollutant sources and health risks associated with air and water quality”

Module 1. Environmental Health

- 1.1. Environmental Health: Health Impact Assessment One Health Approach
 - 1.1.1. Environmental Health through Environmental Determinants of Health
 - 1.1.2. Interaction of Health and Environment with One Health Approach
 - 1.1.3. Health in all Policies Health Impact Assessment Tools
- 1.2. Water Quality: Water Supply
 - 1.2.1. Sanitary Quality of Water: Sources of Contamination and Health Risks Emerging Contaminants
 - 1.2.2. Infrastructures of Water Supplies for Human Consumption
 - 1.2.3. Drinking Water Treatment Products for the Treatment of Drinking Water
 - 1.2.4. Quality Control of Water for Human Consumption
 - 1.2.5. Disinfection By-products
 - 1.2.6. Communication of Water Quality to the Population
- 1.3. Water Quality Recreational Waters: Swimming Pool and Bathing Waters
 - 1.3.1. Risks Associated with the Use of Recreational Waters
 - 1.3.2. Requirements for Swimming Pool and Water Park Facilities
 - 1.3.3. Treatments to Ensure Water and Air Quality Products
 - 1.3.4. Control of the Sanitary Quality of Water and Air
 - 1.3.5. Bathing Water Quality Requirements
 - 1.3.6. Water Pollution Prevention Measures
 - 1.3.7. Sanitary and Environmental Monitoring and Control of Bathing Waters
 - 1.3.8. Communication of Risks to the Population
- 1.4. Environmental Management of Legionellosis
 - 1.4.1. Bacteria From an Environmental Health Perspective
 - 1.4.2. Facilities and Equipment Involved and Preventive Measures
 - 1.4.3. Control Strategies and Responsibilities
 - 1.4.4. Examples of Cases and Outbreaks Apprenticeships





- 1.5. Public Health and Chemical Safety
 - 1.5.1. International Chemical Risk Management
 - 1.5.2. Hazard Classification and Communication: Labeling and Safety Data Sheets
 - 1.5.3. Registers for the Protection of Human Health and the Environment against Chemical Hazards Evaluation, Authorization and Restrictions of Chemical Substances
 - 1.5.4. Biocides Administrative Control Over Activities and Users
- 1.6. Environmental Management of Vector-borne Diseases
 - 1.6.1. Main Vectors
 - 1.6.2. Impact on Health
 - 1.6.3. Vector Control Strategies
- 1.7. Public Health Impact of Contaminated Soil, Solid Waste and Contaminated Wastewater
 - 1.7.1. Contaminating and Emerging Sources
 - 1.7.2. Pollution Prevention Measures
 - 1.7.3. Monitoring Systems and Control Strategies
- 1.8. Monitoring and Control of Physical Contamination and Natural Radioactivity to Protect Public Health
 - 1.8.1. Natural Radioactivity
 - 1.8.2. Routes of Exposure
 - 1.8.3. Radioactivity in Drinking Water and its Regulations
 - 1.8.4. Radon as a Parameter in Indoor Air Quality and its Management
- 1.9. Public Health Protection Air Quality: Atmospheric Pollution
 - 1.9.1. Air Quality Analysis
 - 1.9.2. Pollutant Sources and Health Risks Associated with Air Quality
 - 1.9.3. Monitoring Systems and Control Strategies
 - 1.9.4. Communication of Risks to the Population
- 1.10. Climate Change and Health
 - 1.10.1. Climate Change
 - 1.10.2. Actions to Address Climate Change
 - 1.10.3. Influence of Climate Change and Health
 - 1.10.4. Climate Change and Social Determinants of Health

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.



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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"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

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 evaluate 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.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



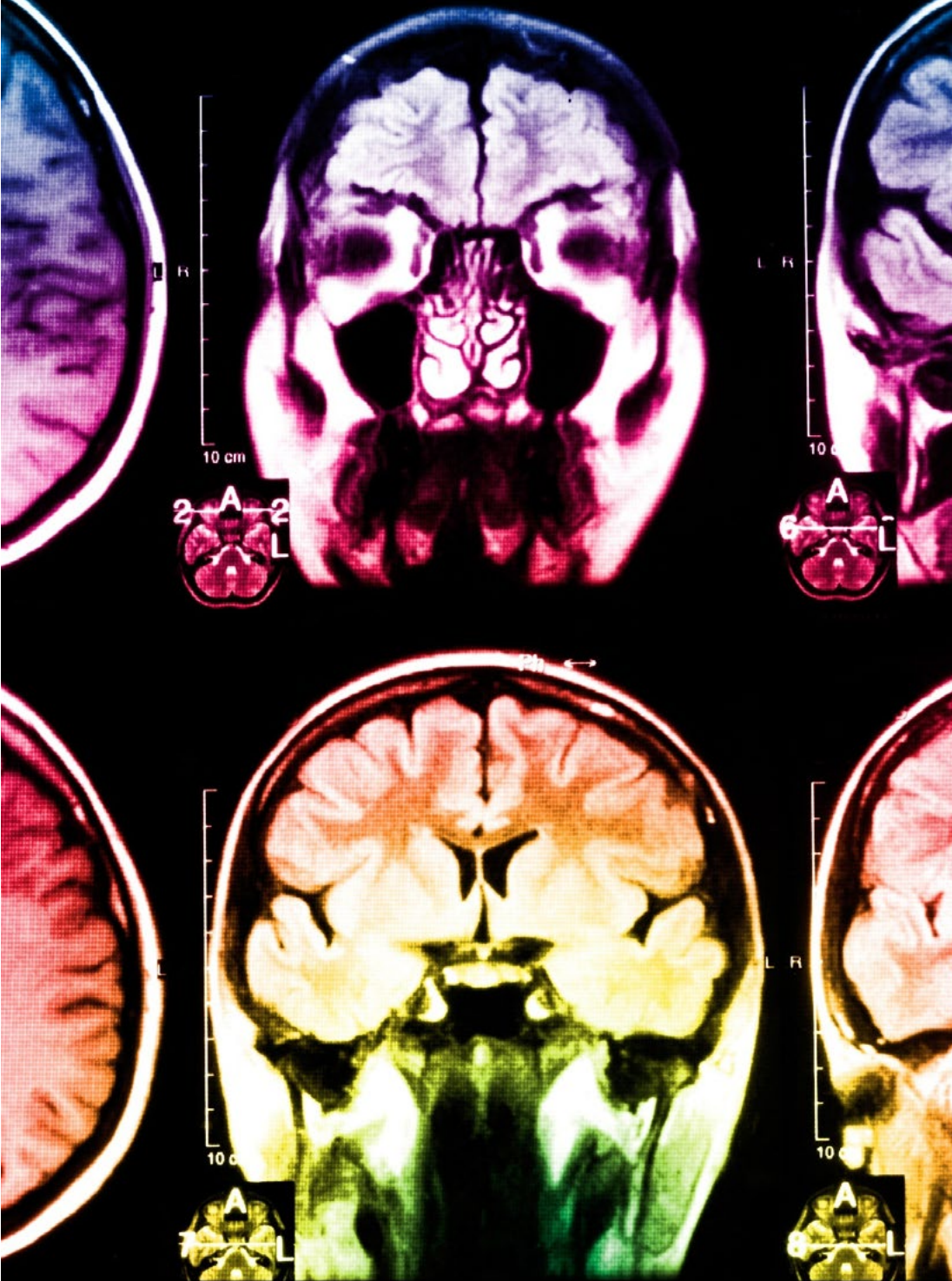
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

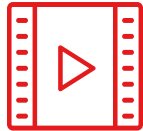
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



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.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

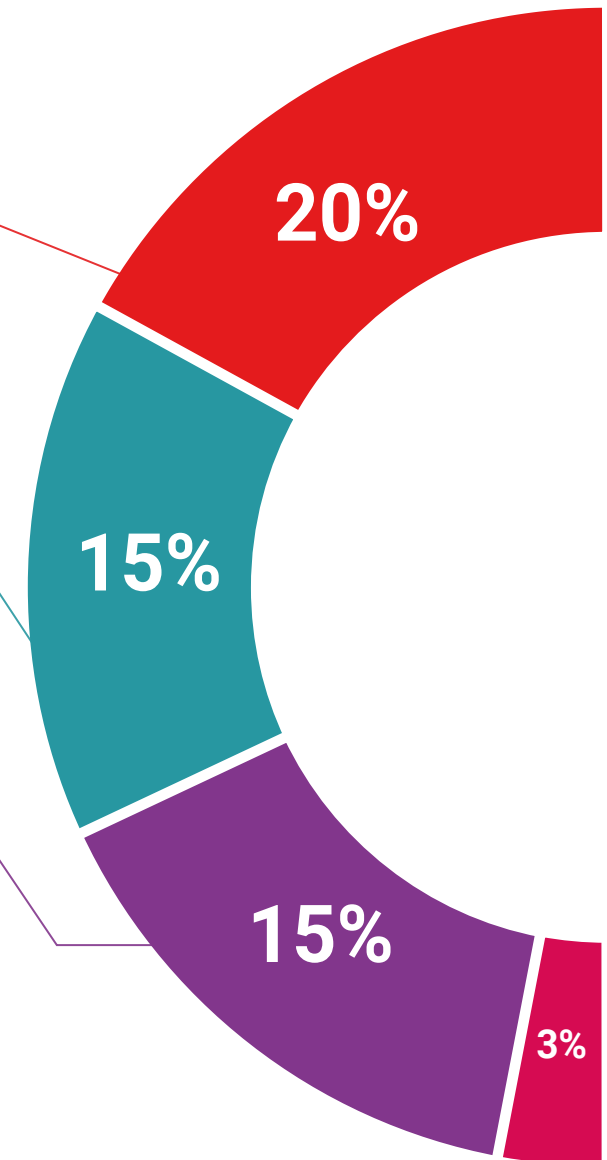
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

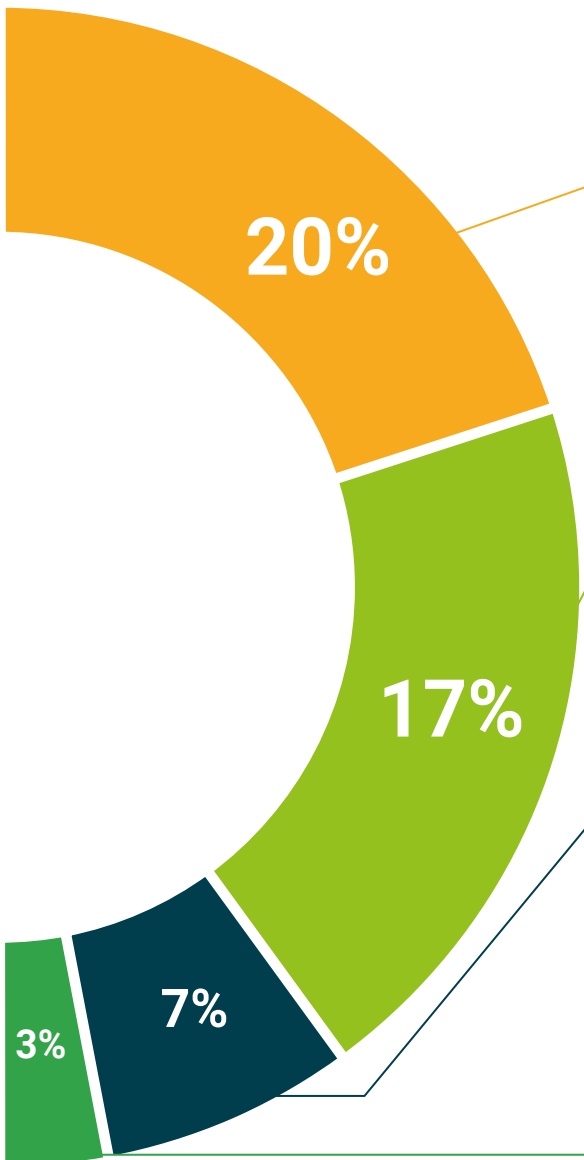
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



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.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in 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

The Postgraduate Certificate in Environmental Public Health guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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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 Environmental Public Health** 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 Environmental Public Health**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





Postgraduate Certificate Environmental Public Health

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Postgraduate Certificate

Environmental Public Health