Postgraduate Diploma Public Health Surveillance



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## **Postgraduate Diploma** Public Health Surveillance

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-public-health-surveillance

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06 Certificate

## 01 Introduction

Public Health Surveillance is crucial to protect and improve the health of populations. In fact, this system allows the early identification of disease outbreaks, facilitating a rapid and effective response to contain their spread. In addition, through continuous monitoring of health trends and patterns, emerging risk factors can be identified and preventive strategies developed, therefore strengthening the capacity of health systems to face present and future challenges. In this context, a fully online program has been developed, which can be accessed through an electronic device with an Internet connection. It is also based on the innovative Relearning methodology, a pioneering method in TECH.

## Introduction | 05 tech

Through this 100% online Postgraduate Diploma, you will acquire competencies in the use of epidemiological surveillance technologies and methods, allowing you to play a crucial role in disease prevention and control"

## tech 06 | Introduction

Public Health Surveillance plays a fundamental role in protecting and promoting the well-being of society. By monitoring and analyzing data related to the health of the population, this discipline makes it possible to detect and respond early to emerging threats.

This is how this Postgraduate Diploma in Public Health Surveillance was born, in which doctors will explore the essential principles of epidemiological surveillance, including risk assessment, management and communication. In this sense, they will delve into primary prevention research for chronic diseases and interpret epidemiological data related to environmental health, mastering innovative control systems in pharmacovigilance and international disease surveillance.

They will also analyze both the epidemiology and prevention of communicable and non-communicable diseases. From understanding the risk factors of Cancer, to the usefulness of vaccines in the prevention of Infectious Diseases, a comprehensive view of strategies to address various Public Health conditions will be offered. In addition, the promotion of healthy aging, detection of rare diseases and the identification of major communicable diseases.

Finally, the ability to design and evaluate intervention studies, as well as to understand their methodological quality will be developed. From the importance of patient safety, to the implementation of strategies based on scientific evidence for the evaluation of Public Health plans, professionals will apply rigorous and updated knowledge in the continuous improvement of Public Health and health care.

Therefore, an online program of excellent quality has been designed to meet the individual needs of students and eliminate associated problems, such as moving to a physical campus and adapting to fixed schedules. In addition, a revolutionary learning methodology called Relearning, which involves the review of essential concepts to achieve a more solid understanding of the contents.

This **Postgraduate Diploma in Public Health Surveillance** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Public Health Surveillance
- 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 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

This specialized program will provide you with advanced knowledge and practical skills to identify, analyze and respond effectively to Public Health problems. What are you waiting for to enroll?"

### Introduction | 07 tech

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You will address the quality and methodological correctness of prognostic factor studies, as well as the introduction of patient safety as a key concept in healthcare. Bet on TECH!"

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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.

You will gain a profound understanding of research requirements in the primary prevention of Chronic Diseases and the evaluation of effective strategies, as well as the interpretation of epidemiological data related to environmental health.

You will master rare disease detection and neonatal screening programs, as well as evaluate healthy and active aging programs, all through an extensive library of multimedia resources.

# 02 **Objectives**

The objectives of this Postgraduate Diploma will be to update medical professionals in the identification, analysis and management of health risks in the population, through the use of advanced epidemiological surveillance methodologies. Therefore, graduates will be equipped with the necessary skills to design, implement and evaluate health protection and prevention programs based on scientific evidence. In addition, they will develop the ability to interpret epidemiological data and apply innovative control and prevention systems, including pharmacovigilance and international disease surveillance.

Don't miss this unique TECH opportunity! These objectives will develop your skills to effectively respond to emerging threats in Public Health, promoting the safety and well-being of communities"

## tech 10 | Objectives



## **General Objectives**

- 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

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You will be skilled in international cooperation and the use of innovative technologies for disease surveillance, ensuring a coordinated global response to emerging health threats"





### **Specific Objectives**

#### Module 1. Public Health Surveillance

- Determine the fundamental principles of health protection and prevention, including epidemiological surveillance, risk assessment, management, control and communication
- Examine self-monitoring and surveillance systems through hazard analysis and identification of critical control points
- Delve into the investigation systems and conduct a critical analysis of indicators, as well as records and evaluation systems
- Determine the requirements in primary prevention research for chronic diseases, as well as evaluate effective strategies
- Specify the terms needed to conduct research for improvement in the design, implementation, and evaluation of comprehensive health protection and prevention programs
- Analyze, in detail, the interpretation of epidemiological data related to environmental health, including surveillance of diseases and environmental risk factors
- Describe innovative monitoring and prevention systems in pharmacovigilance that allow for early detection of drug-related adverse events
- Describe international disease surveillance systems and cooperative systems among them

#### Module 2. Epidemiology and Prevention of Communicable and Noncommunicable Diseases

- Analyze the epidemiology and risk factors of Cancer, as well as its primary and secondary
  prevention
- Support the epidemiology of Cardiovascular Diseases and their risk
- Promote the detection of rare diseases and neonatal screening programs

- Evaluate healthy and active aging programs
- Identify the main communicable diseases
- Determine the usefulness of vaccines in the prevention of Immunopreventable Infectious Diseases

#### Module 3. Clinical Epidemiology

- Develop the ability to identify and describe the main components of an intervention study, as well as to determine its different types
- Analyze the importance of quality assessment of intervention studies
- Compile examples of good- and poor-quality intervention studies
- Evaluate the methodology and design of pragmatic and explanatory clinical trials
- Analyze the different phases of the design of diagnostic test validity studies and the methodological quality and correctness of these studies
- Provide a basis for the quality and methodological correctness of prognostic factor studies
- Introduce patient safety as a key concept in quality healthcare
- Propose activities for the evaluation of Public Health plans, implementing strategies based on scientific evidence

## 03 Course Management

The teachers are highly qualified professionals with vast experience in various areas related to Public Health and Epidemiology. They come from recognized universities and renowned research institutions, these experts will bring up-to-date knowledge and innovative practices to their teaching. In addition, their extensive experience in the field will allow them to offer a comprehensive and multidisciplinary perspective on the challenges and best practices in Public Health Surveillance.

In addition to imparting fundamental theoretical knowledge, the faculty in this program will encourage critical thinking, debate, and practical application of concepts"

## tech 14 | Course Management

#### 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

## Course Management | 15 tech

#### Professors

#### Dr. Rodríguez Ledo, María Pilar

- President of the Territorial Research Ethics Committee of Santiago-Lugo
- National Coordinator of the Research Methodology and Support Working Group of the Spanish Society of General and Family Physicians (SEMG)
- Deputy Medical Director of the Integrated Management Structure of Lugo, Cervo and Monforte
- Responsible for the Innovation Node in the Integrated Management Structure of Lugo, Cervo and Monforte
- Responsible for the Simulation Classroom at the Integrated Management Structure of Lugo, Cervo and Monforte
- Vice-secretary of the Official College of Physicians of Lugo
- Member of the National Commission of the Specialty of Family Medicine, as Advisor to the Ministry of Health, Social Services and Equality
- Specialist in Family and Community Medicine
- Doctor of Medicine from the University of A Coruña
- Master's Degree in Drug Addictions and AIDS by the Official College of Physicians of Malaga
  - and the Institute for Research in Social Sciences
- Master's Degree in Design and Statistics in Health Sciences by the Autonomous of Barcelona
- Graduate in Medicine and Surgery from the University of Barcelona
- Member of: Foundation for Research and Training of the Spanish Society of General and Family Physicians (FIFSEMG), SEMG-Solidaria Foundation and UNICEF

### Dr. Sanz Muñoz, Iván

- Head of Scientific and Virological Surveillance at the National Influenza Center of Valladolid
- Director and Coordinator of the Influenza Update Conference at the National Influenza Center of Valladolid
- PhD in Health Sciences Research from the University of Valladolid
- Master's Degree in Vaccines from the Catholic University of San Antonio of Murcia
- Master's Degree in Genomics and Medical Genetics from the University of Granada
- Master's Degree in Health Sciences Research: Pharmacology, Neurobiology and Nutrition by the University of Valladolid
- Master's Degree in Anthropology and Forensic Genetics from the University of Granada
- Degree in Biology from the University of Salamanca
- Member of: WHO Global Influenza Surveillance Network (GISRS), Institute of Health Sciences of Castilla y León (ICSCYL) and Center for Biomedical Research in Infectious Diseases (CIBERINFEC)

## tech 16 | Course Management

#### Dr. Armenteros Yeguas, María Inés

- FEA of Internal Medicine at the Sandoval Health Center, San Carlos Clinical Hospital
- Clinical Researcher at the Biomedical Research Foundation of the San Carlos Clinical Hospital
- Resident Intern of Internal Medicine at the San Carlos University Hospital
- Hybrid Professional Master's Degree in Infectious Diseases and International Health Miguel Hernández University
- Master's Degree in Human Immunodeficiency Virus Infection from the Rey Juan Carlos
  Unviersity
- Postgraduate Course in Fundamentals of Design and Statistics from the Autonomous University of Barcelona
- Graduate in Medicine and Surgery from the Complutense University of Madrid

#### Dr. Mera Cordero, Francisco

- Director of the Precision Medicine Unit of Long Covid and Post Viral Syndromes at Blue Healthcare
- Clinical Director and Collaborating Researcher of the study "ACE 2 in Post COVID Syndrome" of the Severo Ochoa Molecular Biology Center
- Emergency Physician in Assistència Sanitària
- Master's Degree in Diabetes and Nutrition by the Francisco de Vitoria University
- Degree in Medicine and General Surgery from the University of Zaragoza
- Disseminator in the Health Dissemination Channel COVID Persistent in Medicina TV
- Presenter in Iberoamerican Channel @AIREyVIDA2021
- Member of the Board of the Spanish Network for Research in Persistent COVID
- Member of the CIBER POSTCOVID Group of the Carlos III Institute

#### Dr. Jimeno Sanz, Isabel

- Director and Family Physician at the Isla de Oza Health Center
- Collaborator with different groups of the Consejería de Sanidad de Madrid
- Responsible for the SEMG Vaccine Group
- Specialist in the CAM Vaccine Advisory Committee and in the VHP Platform of Madrid
- Principal Investigator in Clinical Trials
- Master's Degree in Epidemiology and Public Health Autonomous University of Madrid
- Master's Degree in Dietetics and Nutrition by the University of Navarra
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Diploma in Leadership and Management of PC Teams, Autonomous University of Madrid
- Member of the Neumoexperto Group

## Course Management | 17 tech

#### Dr. Sánchez Diz, Paula

- Technical Research Coordinator at the Spanish Society of General and Family Physicians (SEMG)
- Coordinator and Member of the Executive Committee of the Spanish Research Network on Persistent COVID (REiCOP)
- Technical Auditor of UNE-EN ISO/IEC 17025 and UNE-EN ISO/IEC 17043 in Clinical Trial laboratories
- Specialist Molecular Biology Technician at Nasertic
- Teaching and Research Staff at the University of Santiago de Compostela
- Predoctoral Research Staff linked to research projects
- PhD in Biology from the University of Santiago de Compostela
- Degree in Biology from the University of Santiago de Compostela

#### Dr. Losada Salamanca, Diana Carolina

- Palliative Medicine Physician, Palliative Care Unit at Hospital Virgen de la Luz
- Emergency Physician at the Hospital Virgen de la Luz
- Master's Degree in Bioethics by the Catholic University of Valencia
- Master's Degree in Palliative Care for Medicine by the CEU Cardenal Herrera
- Expert in Individualized Palliative Care for Medicine
- Expert in Clinical Management of the Palliative Care Patient For Medicine
- Expert in Psychosocial Aspects in the Palliative Patient For Medicine
- Medical Specialist in Family and Community Medicine (2020)
- Degree in Medicine and Surgery from the Pontifical Javeriana University

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#### Dr. Silva Contreras, Javier

- Head of the Preventive Medicine Service of the Virgen de la Luz Hospital
- Master's Degree in Public Health and Healthcare Management, University of Valencia
- Master's Degree in Infectious Diseases and Antimicrobial Treatment by the Cardenal Herrera University
- Specialist in Vaccines by the University of Santiago de Compostela
- Specialist in Nosocomial Infections by the EUROINNOVA Postgraduate Training Center
- Specialist Doctor in Preventive Medicine and Public Health
- Degree in Medicine and Surgery from the Pontifical Javeriana University





## Course Management | 19 tech

**G G G Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice**"

## 04 Structure and Content

The contents of the program will include an understanding of the fundamental principles of epidemiological surveillance, risk assessment and health crisis management, as well as the analysis of self-monitoring and surveillance systems. Therefore, professionals will delve into research in primary prevention of chronic diseases, interpretation of epidemiological data and pharmacovigilance. In addition, they will delve into the epidemiology and prevention of communicable and non-communicable diseases, as well as clinical epidemiology and quality assessment of intervention studies.

You will cover the fundamental principles of health prevention and protection, with a focus on epidemiological surveillance, risk management and risk communication, thanks to the best teaching materials"

## tech 22 | Structure and Content

#### Module 1. Public Health Surveillance

- 1.1. Protection, Prevention and Surveillance in Public Health: Classification, Evaluation, Management and Risk Control and Communication
  - 1.1.1. Health Protection and Prevention
  - 1.1.2. Risk Health and Management Surveillance
  - 1.1.3. Risk Communication Mechanisms and Limitations
- 1.2. Self-control and Surveillance Systems: Hazard Analysis and Critical Control Points
  - 1.2.1. Establishment of Preventive Protocols
  - 1.2.2. Identification and Risk Assessment
  - 1.2.3. Implementation and Follow-up Control Points
- 1.3. Research and Critical Analysis of Process and Outcome Indicators, Records, and Evaluation Systems Development and Innovation
  - 1.3.1. Research and Analysis of Indicators
  - 1.3.2. Recording and Evaluation for Efficient Data Management
  - 1.3.3. Innovation in Evaluation Systems
- 1.4. Research in the Design, Implementation, and Impact Evaluation of Health Protection and Prevention Programs
  - 1.4.1. Mechanisms for the Design of Health Protection and Prevention Programs
  - 1.4.2. Implementation of Health Protection and Prevention Programs
  - 1.4.3. Analysis of the Impact of Health Protection and Prevention Programs
- 1.5. Analysis and Interpretation of Epidemiological Data on Environmental Health: Surveillance, Estimation, Plans and Programs
  - 1.5.1. Importance of Environmental Health in Human Health.
  - 1.5.2. Exploration of Environmental Epidemiological Data
  - 1.5.3. Practical Application of Environmental Data Analysis
- 1.6. Interpretation of Epidemiological Data on Chronic Diseases and Planning: Surveillance, Estimation, Design of Plans, Programs, and Screening
  - 1.6.1. Epidemiological Analysis of Chronic Diseases Importance of Monitoring
  - 1.6.2. Design and Development of Interventions for Chronic Diseases
  - 1.6.3. Epidemiological Surveillance and Disease Burden Analysis
- 1.7. Research in Primary Prevention of Chronic Diseases: Health Protection
  - 1.7.1. Research in Primary Prevention of Chronic Diseases
  - 1.7.2. Applied Research in Health Prevention and Protection
  - 1.7.3. Impact Evaluation and Communication of Results

### Structure and Content | 23 tech

- 1.8. Innovation in Pharmacovigilance Monitoring and Prevention Systems: Alerts and Preventive Interventions
  - 1.8.1. Importance of Pharmacovigilance Safety in the Use of Drugs
  - 1.8.2. Advances in Pharmacovigilance Monitoring Systems
  - 1.8.3. Risk Prevention Through Preventive Interventions
- 1.9. Models of Response to Alerts, Epidemic Outbreaks and Emergencies Development of Protocols and Procedures
  - 1.9.1. Response Strategies for Health Emergencies
  - 1.9.2. Development of Crisis Management Protocols
  - 1.9.3. Implementation and Evaluation of Emergency Response
- 1.10. International Health and Innovation in International Cooperation for Epidemiological Surveillance
  - 1.10.1. International Health Global Perspective on Epidemiological Surveillance
  - 1.10.2. Innovation in International Cooperation for Epidemiological Surveillance
  - 1.10.3. Challenges and Future of International Cooperation in Health

## Module 2. Epidemiology and Prevention of Communicable and Non-

#### communicable Diseases

- 2.1. Cancer Epidemiology: Risk Factors and Primary Prevention
  - 2.1.1. Descriptive Epidemiology: Incidence, Mortality and Data Sources
  - 2.1.2. Cancer Risk Factors: Environmental and Occupational
  - 2.1.3. Other Factors: Ultraviolet Light, Infections, Radiation
- 2.2. Risk Factors and Primary Prevention of Cancer: Lifestyle and Screening
  - 2.2.1. Primary Prevention Risk Factors and Prevention Strategies
  - 2.2.2. Legislative Measures
  - 2.2.3. Secondary Prevention
- 2.3. Biological Mechanisms of Cardiovascular Disease Estimation of Cardiovascular Risk and Population Prevention
  - 2.3.1. Ischemic Heart Disease and Stroke
  - 2.3.2. Epidemiological Indicators
  - 2.3.3. Classification of Cardiovascular Risk
  - 2.3.4. Prevention and Control of Cardiovascular Diseases

- 2.4. Detection of Rare Diseases and Neonatal Screening
  - 2.4.1. Rare Diseases
  - 2.4.2. Newborn Screening Programs
  - 2.4.3. Neonatal Screening for Congenital Metabolic and Endocrinologic Diseases
- 2.5. Comprehensive Approach to Chronic Disease Prevention for Healthy and Sustainable Aging
  - 2.5.1. Healthy Aging
  - 2.5.2. Active Aging
  - 2.5.3. Integrated Prevention
- 2.6. Epidemiology of Communicable Diseases: Epidemiologic Surveillance Systems and Notifiable Disease Systems
  - 2.6.1. Causative Agents
  - 2.6.2. Time Periods
  - 2.6.3. Transmission
  - 2.6.4. Host and Susceptible Population
  - 2.6.5. Epidemiological Surveillance Systems
- 2.7. Utility of Vaccines in the Prevention of Immunopreventable Infectious Diseases
  - 2.7.1. Analysis of the Importance of Vaccination in the Prevention of Infectious Diseases at the Individual and Community Levels
  - 2.7.2. Evolution of Vaccines: Types of Vaccines Currently Available
  - 2.7.3. Mechanisms of Action of Vaccines and Their Impact on the Immune System
  - 2.7.4. Efficacy and Safety of Vaccines in the Prevention of Infectious Diseases
  - 2.7.5. Importance of Vaccination in Risk Groups and in the Prevention of Epidemics
  - 2.7.6. Logistics and Vaccination Programs at the International Level
  - 2.7.7. Economic and Social Impact of Vaccination in the Prevention of Infectious Diseases
  - 2.7.8. Research and Analysis of Barriers and Challenges in the Implementation of Vaccination Programs
  - 2.7.9. Strategies and Measures to Promote Vaccination and to Raise Public Awareness of its Importance
  - 2.7.10 Evaluation and Critical Analysis of the Scientific Literature Related to Vaccines and their Usefulness in the Prevention of Infectious Diseases

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- 2.8. Emerging Diseases Epidemic Outbreaks
  - 2.8.1. Factors Favoring Emerging Diseases
  - 2.8.2. New Agents and Diseases
  - 2.8.3. International Health Regulations (IHR)
  - 2.8.4. Epidemic Outbreaks. Study, Control and Measures: Chemoprophylaxis, Immunoglobulins and Vaccines
- 2.9. Viral Hepatitis, HIV infection, AIDS, Sexually Transmitted Infections (STIs) and Tuberculosis
  - 2.9.1. Hepatitis A: Etiology, Epidemiology and Preventive Measures
  - 2.9.2. Hepatitis B: Etiology, Epidemiology and Preventive Measures
  - 2.9.3. Other Viral Hepatitis: Etiology, Epidemiology and Preventive Measures
  - 2.9.4. HIV: Etiology, Epidemiology and Preventive Measures
  - 2.9.5. Sexually Transmitted Infections (STIs): Etiology, Epidemiology, and Preventive Measures
  - 2.9.6. Tuberculosis: Etiology, Epidemiology and Preventive Measures
- 2.10. Meningococcal Disease (MD) and Zoonosis: Epidemiology Prevention and Control
  - 2.10.1. Epidemiology of Meningococcal Disease
  - 2.10.2. Prevention and Control of Meningococcal Disease
  - 2.10.3. Epidemiology of Zoonoses
  - 2.10.4. Prevention and Control of Zoonoses

#### Module 3. Clinical Epidemiology

- 3.1. Design and Quality Assessment of Intervention Studies in Epidemiology
  - 3.1.1. Intervention Studies, Types and Key Design Elements
  - 3.1.2. Ethical Aspects of Intervention Research
  - 3.1.3. Design of Specific Intervention Studies
  - 3.1.4. Tools for Assessing the Quality of Intervention Studies
  - 3.1.5. Critical Appraisal of Intervention Studies
  - 3.1.6. Importance of Design and Quality Assessment

- 3.2. Pragmatic vs. Explanatory Randomized Clinical Trials
  - 3.2.1. Differentiation Between Pragmatic and Explanatory Clinical Trials
  - 3.2.2. Ethical Implications of Each Approach
  - 3.2.3. Critical Evaluation of the Methodology and Design of Each Type of Trial
  - 3.2.4. Application of Knowledge to Clinical Practice and Research
  - 3.2.5. Promotion of Critical Thinking and Analytical Skills
  - 3.2.6. Design and Conduct of Clinical Studies
- 3.3. Design of Diagnostic Test Studies
  - 3.3.1. Selection of the Study Population and Definition of Inclusion and Exclusion Criteria
  - 3.3.2. Determination of the Study Design and Selection of the Reference Methodology
  - 3.3.3. Calculation of Diagnostic Accuracy and Analysis of Results
- 3.4. Evaluation of the Quality of a Diagnostic Test Study
  - 3.4.1. Study Validity Analysis
  - 3.4.2. Evaluation of the Accuracy of the Diagnostic Test
  - 3.4.3. Analysis of the Clinical Utility of the Diagnostic Test
- 3.5. Design and Quality Assessment of Prognostic Factor Studies
  - 3.5.1. Selection and Definition of Prognostic Factors
  - 3.5.2. Study Design and Selection of the Study Population
  - 3.5.3. Evaluation of the Quality of the Study and the Prognostic Model
- 3.6. Evidence-based Clinical Recommendations: GRADE 1
  - 3.6.1. Systematic Review of the Scientific Literature Identification of Clinical Recommendations
  - 3.6.2. Quality of Evidence and Strength of Recommendations
  - 3.6.3. Clinical Recommendations Applicable to Clinical Practice
  - 3.6.4. Development of Clinical Protocol or Clinical Guideline Based on the Identified Recommendations
  - 3.6.5. Implementation and Follow-up of the Clinical Protocol or Guideline in Patient Care Evidence and Focus on Improving Clinical Outcomes
  - 3.6.6. Periodic Evaluation, through Monitoring of Clinical Outcome Indicators and Feedback from the Health Professionals Involved



## Structure and Content | 25 tech

- 3.7. Evidence-based Clinical Recommendations: GRADE 2
  - 3.7.1. Analysis and Synthesis of the Available Evidence in the Scientific Literature for the Development of Recommendations
  - 3.7.2. Identification and Evaluation of the Quality of the Relevant Studies that Support the Clinical Recommendations
  - 3.7.3. Application of the Principles of the GRADE Methodology to Establish the Strength and Certainty of Clinical Recommendations
  - 3.7.4. Developing Clinical practice Guidelines that Incorporate Evidence-based Recommendations and that are Useful for Clinical Decision Making
  - 3.7.5. Periodic Updating and Revision of Clinical Recommendations Based on the Available Scientific Evidence
- 3.8. Evaluation of the Quality of Care
  - 3.8.1. Quality Criteria and Standards from the Point of View of Safety
  - 3.8.2. Evaluation of the Effectiveness of the Results obtained through the Actions Evaluated of the Actions Evaluated and their Components
  - 3.8.3. Measurement of Patient Outcomes and Experiences, Patient-Reported Outcome Measures (PROM) and Patient-Reported Experience Measures (PREM)
  - 3.8.4. Indicators for Assessing the Degree of Involvement, Participation and Satisfaction of Healthcare Professionals
- 3.9. Incorporation of Patients' Values and Preferences: Shared Decisions
  - 3.9.1. Effective Communication and Understanding of Values and Preferences
  - 3.9.2. Education and Counseling on Treatment Options
  - 3.9.3. Facilitation of Shared Decision Making
- 3.10. Patient Safety
  - 3.10.1. Identification and Recording of Adverse Events
  - 3.10.2. Analysis of Errors and Underlying Causes
  - 3.10.3. Implementation of Corrective Actions and Prevention Measures

# 05 **Methodology**

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.** 

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

## tech 28 | Structure and Content

### 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:

 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.



## tech 30 | Structure and Content

### **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.



### Structure and Content | 31 tech

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.



## tech 32 | Structure and Content

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.

20%

15%

3%

15%

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.

## Structure and Content | 33 tech



#### **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.

20%

7%

3%

17%



#### **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 Diploma in Public Health Surveillance guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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

## tech 36 | Certificate

This private qualification will allow you to obtain a **Postgraduate Diploma in Public Health Surveillance** 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 Diploma in Public Health Surveillance** Modality: **online** Duration: **6 months** Accreditation: **18 ECTS** 



\*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

tecn global university Postgraduate Diploma Public Health Surveillance » Modality: online » Duration: 6 months » Certificate: TECH Global University » Credits: 18 ECTS » Schedule: at your own pace

» Exams: online

## Postgraduate Diploma Public Health Surveillance



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