



Professional Master's Degree

Public Health

» Modality: online

» Duration: 12 months

» Certificate: TECH Global University

» Credits: 60 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/professional-master-degree/master-public-health

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01 Introduction

Public Health today is marked by significant challenges and advances in several areas. The COVID-19 pandemic continues to have global repercussions, highlighting the need for resilient and efficient health systems. In parallel, climate change is exacerbating health problems such as respiratory diseases and disease vectors. In addition, there is a growing focus on mental health, with efforts to reduce stigma and improve access to support services. In this context, TECH has developed a comprehensive 100% online program, which only requires an electronic device with an Internet connection to access its content. Additionally, it is based on the revolutionary Relearning methodology, a pioneering method of the best digital university in the world.



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Contemporary Public Health faces multifaceted challenges globally, highlighting the persistence of infectious diseases such as COVID-19, which continues to require vigilance and adaptations in health policies. Meanwhile, non-communicable diseases such as diabetes and cardiovascular diseases continue to increase due to various factors.

This is how this study was born, which will benefit physicians with a specialized, multidisciplinary and holistic specialization, through a broad and integrative vision of the main pillars of Public Health in the 21st century: surveillance, promotion and protection of health and welfare, prevention, foreign health and international health, information systems, communication and research.

Likewise, this academic program will provide professionals with excellent preparation in the scientific and epidemiological method, focused on studying the distribution and determinants of health problems in populations, as well as on developing programs for the prevention and control of health problems. In addition, in the field of community health, we will delve into the reduction of inequalities, designing community prevention and intervention programs.

Finally, global health challenges such as communicable diseases, poor nutrition and limited access to health services will be addressed, focusing on the situation of vulnerable populations such as children, the elderly and people with disabilities. Specialists will also be updated on crisis management and health emergencies, including the response to epidemics, natural disasters and terrorism.

At this juncture, we have designed a university program of the highest quality, fully online to favor the individual needs of students and not have to deal with extra difficulties, such as traveling to a physical center and adjusting to a pre-established schedule. To this is added the implementation of the innovative Relearning methodology, consisting of the constant reiteration of the key concepts for an optimal and organic assimilation of the contents.

This **Professional Master's Degree in Public Health** 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 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 self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



You will address relevant topics, such as epidemiology and biostatistics, gaining an in-depth understanding of the distribution and determinants of disease and injury in human populations"



You will focus on environmental and occupational health, understanding how the physical and occupational environment affects health, and managing environmental and occupational risks. What are you waiting for to enroll?"

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.

You will analyze health systems and policies, as well as their organization and financing at the international level: all through the best teaching materials, at the forefront of technology and education.

Don't miss this unique opportunity that only TECH offers you! You will address strategies to promote healthy lifestyles, as well as the prevention of chronic and acute diseases at the individual and community level.







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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 noncommunicable 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





Specific Objectives

Module 1. Public Health in the 21st Century

- Establish health as an integral and global concept and to define the influencing factors
- Establish the most relevant health determinants in the current situation, historical evolution and to lay the foundations for their future development
- Analyze the current models of international collaboration in health and their characteristics
- Examine the interactions between health, the health system, the environment and the social system
- Analyze current public health policies at the international level
- Review the legal, regulatory and institutional framework for health at the international level
- Recognize the political and governance functions, insurance and provision of public health services in any health system
- Determine the set of professional competencies required to work in public health services
- Incorporate the organizational perspective to the main challenges in Public Health, specifically climate change and pandemic
- Specify the objectives and evaluate the health impact of interventions, both health and non-health interventions

Module 2. Communication and New Technologies in Public Health

- Analyze communication processes and their use in Public Health
- Evaluate the current presence of Public Health in the communication framework and develop strategies for its improvement
- Examine the different communication channels available for use in Public Health and define their use
- Substantiate the specific communication needs in crises with a health component and to establish the essential factors for their best implementation



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- Identify the key points for the use of Social Media as a tool for knowledge and intervention in Public Health
- Examine the technological developments available for use in community health
- Evaluate the use, usefulness, risks and benefits of new technologies available in Public Health
- Present the general framework of the use and future possibilities of Artificial Intelligence in Public Health

Module 3. Evaluation of Public Health Policies and Programs

- Support the need for the evaluation of Public Health policies as an essential part of their development
- Identify the most appropriate models for evaluation in Public Health
- Examine and analyze qualitative and quantitative tools and their use in Public Health evaluation
- Establish the basic principles, methods of measurement and evaluation of health outcomes
- Define objectives, method and scope of the evaluation of public health plans
- Obtain a broad view of the design, decision, implementation and analysis phases of health policies
- Apply the methodology and tools available for the evaluation of specific cases of health plans and policies
- Have an objective and critical view on evaluation



Module 4. 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 5. 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 6. 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

Module 7. Research Methodology in Epidemiology

- Determine the main univariate statistical techniques
- Differentiate between univariate and multivariate analyses
- Develop the main multivariate techniques
- Calculate incidence and prevalence
- Establish statistical packages for data analysis

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- Apply qualitative methodology
- Design qualitative research
- Conduct health study designs
- Analyze and interpret results
- Use ethical principles in epidemiological research

Module 8. Health Promotion and Evaluation

- Analyze the relationship between literacy and health, identifying how health literacy can improve population health outcomes.
- Collaborate with health institutions and organizations to integrate health literacy into public health policies and programs
- Identify and understand the main concepts and rationale of Salutogenesis as a health promotion approach
- Compare different models of health assets to understand how individual and collective resources and capabilities influence health and well-being
- Encourage networking and interdisciplinary collaboration between professionals from health, social services, education and other sectors
- Raise awareness of the importance of community participation, empowerment and health equity as fundamental principles for improving quality of life
- Promote critical reflection on health policies and programs at the community and primary care levels
- Analyze the ethical framework and the principles of equity in community intervention programs in Public Health



Module 9. Public Health in Situations of Vulnerability

- Analyze the main health risks for children and adolescents, as well as measures to avoid them
- Examine the influence of gender on health and well-being
- Substantiate the factors that influence the health of workers in any field
- Establish the health needs and challenges in different multicultural contexts
- · Promote and maintain functional capacity for well-being in old age
- Compile the factors affecting mental health and to improve its promotion, prevention and treatment
- Identify the developmental implications and the economic, social and medical consequences of the global burden of malnutrition
- Examine the health needs and challenges of migrants and in the event of humanitarian crises and health emergencies

Module 10. Environmental Health

- 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

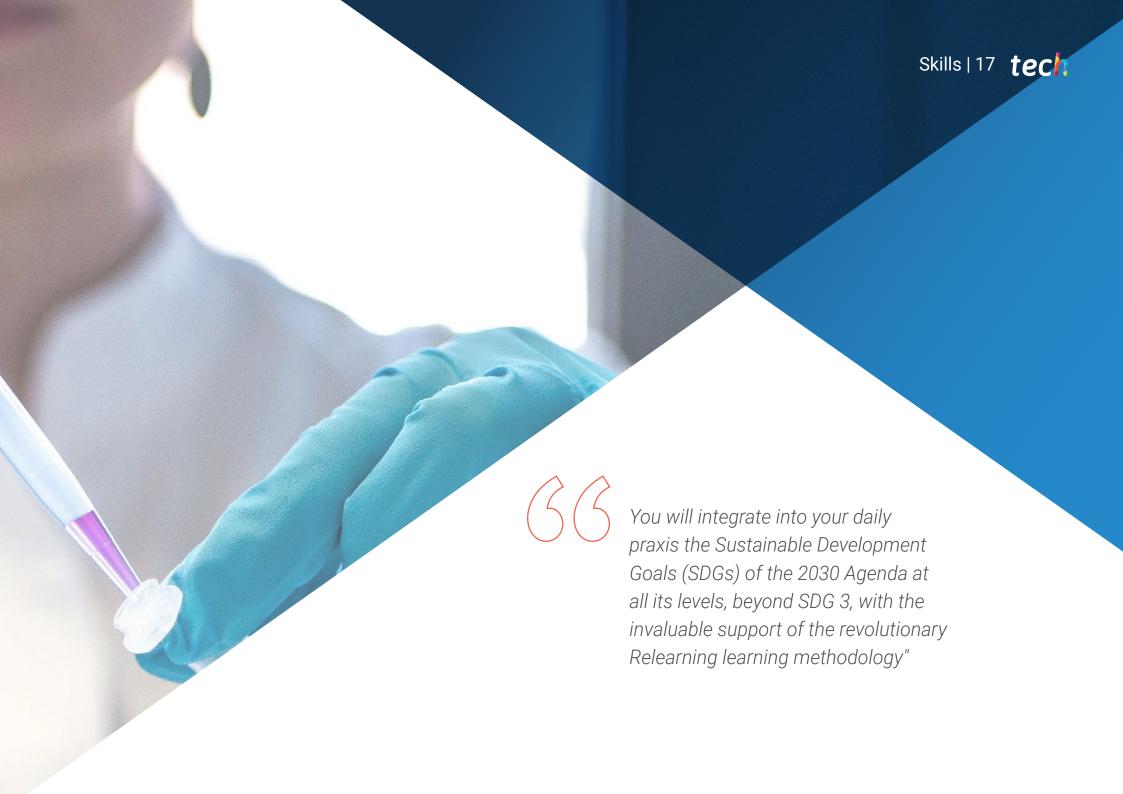
- Examine the main preventive measures to avoid the conditions that favor the colonization, multiplication and dispersion of Legionella
- Substantiate the risk and impact of vectors and the diseases they transmit, in order to develop and establish control strategies and means of control
- Analyze the exposure to natural radioactivity, specifying actions to reduce exposure to radon



You will be skilled to address and manage contemporary Public Health challenges in an effective and evidence-based manner, thanks to TECH's extensive library of innovative multimedia resources"

03 **Skills**

Thanks to the competencies acquired, physicians will design bidirectional communication strategies to transmit and solve emerging health problems between the community and health agents. In addition, they will develop skills in the use of new technologies for analysis and applications in Public Health, ensuring an agile and safe approach. Likewise, they will be able to determine and apply prevention and control measures for communicable and non-communicable diseases, reducing morbidity, disability and mortality. They will also acquire competencies in epidemiological methods, applying this knowledge in clinical settings to improve evidence-based decision making.



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General Skills

- Establish the linkages between health and the Sustainable Development Goals of the 2030 Agenda at all levels, beyond the SDGs3
- Design bidirectional communication strategies that enable the transfer of emerging health problems and their proposed solutions between community and stakeholders
- Develop strategies for the use of new technologies for use in Public Health, define structures and models that allow for agile and secure analysis and application
- Determine measures for the prevention and control of communicable and noncommunicable diseases
- Establish interventions to reduce morbidity, disability and mortality from communicable and non-communicable diseases
- Apply epidemiological methods in clinical settings to conduct epidemiological design and studies in patients, interpretation of results and application in clinical practice
- Contribute to clinical decision-making based on epidemiologic evidence to inform and improve clinical decision making
- Identify public health problems and develop appropriate health promotion strategies to address these challenges
- Promote health equity by understanding the existing disparities in access to health care and underlying social determinants

- Identify the difficulties encountered by different groups in obtaining appropriate health care
- Propose prevention strategies and establish a plan to respond effectively to different situations of vulnerability at the global level
- Establish strategies for the prevention, control and health surveillance of of environmental risks



At the end of this program, you will be prepared to face global health vulnerabilities, as well as to manage environmental risks, strengthening surveillance and sanitary control"



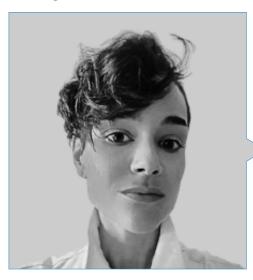
- Design tools to facilitate decision making on the implementation and development of such interventions
- Develop surveillance, intervention and evaluation models for communicable diseases
- Develop a capable, robust and effective information system for evaluation and decision making
- Apply the methodology and tools available for the evaluation of specific cases of health plans and policies
- Carry out a critical analysis of indicators, as well as of registries and evaluation systems
- Interpret epidemiological data related to chronic diseases
- Specify models of agile and effective response to alerts, outbreaks and health emergencies
- Establish the main preventive measures for the control of viral hepatitis, HIV infection and AIDS, sexually transmitted infections and tuberculosis
- Generate specialized knowledge on preventive and control strategies for Meningococcal Disease and the main Zoonoses
- · Apply knowledge to pragmatic and explanatory clinical trials in practice
- Integrate patient experience into clinical decision making, valuing communication and shared decisions
- Develop effective communication strategies tailored to different cultural and linguistic contexts to promote health literacy

- Research and develop new technologies and digital tools to improve health literacy and health promotion in digital environments
- Design and implement strategies based on Salutogenesis and health assets models to promote health and wellness in different settings and communities
- Manage and administer health projects at the local level, taking into account community participation and intersectoral coordination
- Apply different methods of generating ideas for the design of health promotion, health education and disease prevention campaigns
- Evaluate the effectiveness of health promotion campaigns through data collection and analysis, making adjustments as needed to improve results
- Determine mechanisms to protect health from risks arising from chemical substances and mixtures
- Infer the health effects of climate change to implement mitigation and adaptation strategies
- Define air quality by identifying the risks associated with health, in order to establish prevention, control and communication systems



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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. Salmerón Ríos, Raúl

- National Responsible for the Public Health Working Group of the SEMG
- President of the Board of Directors of SEMG of Castilla-La Mancha
- · Family and Community Physician in the Rural Clinic of SESCAM
- Doctor in Health Sciences by the University of Castilla-La Mancha
- Master's Degree in Family Medicine Update by the University of Castilla-La Mancha
- University Expert in Pain Management, Biostatistics, Advanced Life Support, Geriatric Rehabilitation, Vision Sciences, Psychogeriatrics and Active Aging and health by the International University Isabel I of Castile
- Degree in Medicine and Surgery from the University of Zaragoza.
- Member of: Society of Medicine and Surgery of Albacete and Royal Academy of Medicine of Castilla-La Mancha

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. Durán Martínez, Carlos Yair

- Vice-Secretary of the Spanish Society of General and Family Physicians (SEMG)
- Family and Community Physician at the Continuous Care Point (PAC) of O Barco de Valdeorras, Sanitary Area of Ourense, Verín and O Barco de Valdeorras, Servizo Galego of Saúde (SERGAS)
- Coordinator of the SEMG Digital Health Working Group
- Family and Community Physician in Bierzo, Castilla and León Health Care Management
- Medical Intern at the Rural Medical Unit 152 Vicente Guerrero of the Mexican Institute of Social Security
- University Specialist in Digital Health at the University Rey Juan Carlos
- Master's Degree in Palliative Care by the Pontifical University of Salamanca
- Degree in Medicine and Surgery from La Salle University, Mexico

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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
- Doctorate in Biological Sciences from the Complutense University of Madrid

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)

Dr. Chertkoff, Liliana

- · Medical Advisor, Health Management in several institutions and associations
- Advisor to the Association of Municipal Doctors of Buenos Aires
- Medical Trustee at the Superintendence of Health Insurance of the Nation, Argentina
- Coordinator at the Department of Pediatrics, National University of Buenos Aires Teaching/ Research
- Coordinator of Teaching, Research and Rotating Internship at the National University of Buenos Aires
- Advisor and Rapporteur in the Health Commission for the Senate of the Province of Córdoba, Argentina
- Researcher by competition at the Chair of Preventive and Social Medicine, Faculty of Medical Sciences, National University of Córdoba
- Professor and researcher at the Argentine Society of Pediatrics Adolescence Committee
- Temporary professor at the Pan American Health Organization
- Head of the Integral Adolescence Service at the Josefina Prieur Hospital
- General Practitioner in Public and Private Hospitals
- Medical Surgeon by the Faculty of Medical Sciences of the National University of Cordoba Argentina
- Diploma in Public Health from the National University of Cordoba, Argentina
- Master's Degree in Sociology, Faculty of Social Sciences, National University of Córdoba, Argentina
- Degree in Medical Auditing University Institute Hospital Italiano Buenos Aires
- Member of the Argentine Society of Pediatrics

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

Dr. Paulés Cuesta, Isabel María

- Family and Community Physician at the Caspe Health Center
- Family and Community Physician at the Gallur Health Center
- Primary Care and Hospital Care Nurse in the Aragonese Health Service
- Specialist in Family and Community Medicine by the Teaching Unit of Primary Care and Family and Community Care of Huesca
- Master's Degree in Emergencies in Primary Care by the CEU Cardenal Herrera University
- Official Master's Degree in Genetic, Nutritional and Environmental Determinants of Growth and Development by the University of Zaragoza
- Degree in Medicine from the European University of Madrid
- University Diploma in Nursing from the University of Zaragoza

Dr. Bendek Quevedo, Laura Patricia

- Family and Community Physician at the Toreno Health Center
- Family and Community Physician at the Health Care Management of El Bierzo
- Emergency Physician at the El Bierzo Hospital in Ponferrada
- General Practitioner, Betania Special Care Unit, Fundación Valle del Lili, Colombia del Lili Foundation. Colombia
- General Practitioner at Imbanaco Medical Center, Colombia
- Specialist in Family and Community Medicine by the Multiprofessional Teaching Unit of Family and Community Care of León, Ponferrada
- Master's Degree in Palliative Care by the Pontifical University of Salamanca
- University Specialist in Digital Health at the University Rey Juan Carlos
- Degree in Medicine and Surgery from the Universidad del Valle, Colombia

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

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Dr. Álvarez Sobrado, Cristina

- Family and Community Medicine Physician at the Sarria Health Center
- Physician at the Domusvi Monforte and Domusvi Chantada Homes for the Elderly
- Master's Degree in Clinical Medicine from the Camilo José Cela University
- Degree in Medicine from the University of Santiago de Compostela

Dr. Aboal Alonso, Julia María

- Family and Community Medicine Physician at the Sagrado Corazón Health Center
- Participant in the implementation and coordination of the Community Project "Caring for those who care" with ProCC (Community Corrective Processes) methodology
- Graduate in Medicine from the University of Santiago de Compostela

Dr. Pérez Rodríguez, Natalia

- Family and Community Medicine Physician at the Canary Islands Health Center
- Coordinator of the community project "Caring for those who care" with ProCC (Community Corrective Processes) methodology
- Manager of Community Action for Health (I Edition) by the Carlos III Health Institute
- Health Equity Manager Learning with the gypsy people (II Edition) by the Carlos III Health Institute
- Manager of Local Health (VII Edition) by the Carlos III Health Institute
- Degree in Medicine from the University of Santiago de Compostela

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

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
- Presenter 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

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. Pérez Escanilla, Fernando

- Family Physician at the San Juan Health Center in Salamanca
- Head of the Venous Insufficiency Group of the Spanish Society of General and Family Physicians
- Local Head of Health and Coordinator of the Health Centers of Aldeanueva del Camino and North Zone of Cáceres
- Regular speaker at international scientific congresses, such as the Congress of Clinical Ultrasound
- Gold Medal awarded by the Extremadura Health Service
- First Prize for "Best Research Project" of the Spanish Society of General and Family Physicians for "Clinical Ultrasound Classroom in Primary Care"
- Medal to the Collegiate Merit of the Illustrious Colleges of Physicians of Cáceres and Badajoz
- Award for Excellence from the San Juan Health Center
- Degree in Medicine and Surgery from the University of Salamanca



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Dr. Sánchez Borrego, Beatriz

- Specialist in Family and Community Medicine
- Master's Degree in Emergency Medicine, Emergencies and Catastrophes by the CEU Cardenal University
- Specialist in Family and Community Medicine
- Graduate in Medicine from the University of Salamanca.

Dr. Maya, Roberto

- Primary Care Physician Zorita Health Center
- Family and Community Physician in the Family and Community Medicine Teaching Unit of the Cáceres Health Area
- Master's Degree in Emergencies, Emergencies and Catastrophes from the Universidad San Pablo-CEU
- Master's Degree in Medical Emergencies from the University of Guayaquil
- Degree in Medicine from the Faculty of Medical Sciences of the State University of Guayaquil

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





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Module 1. Public Health in the 21st Century

- 1.1. Health, a Global Public Good
 - 1.1.1. Health: Concept, Limitations of Definitions and Evolution
 - 1.1.2. Health of the Individual, Public Health and Social Health
 - 1.1.3. Health in a Globalized World: Opportunities and Threats
- 1.2. Health Determinants: Past, Present and Future
 - 1.2.1. Models: Health Field, Social Determinants, Social Determination
 - 1.2.2. Structural, intermediate and proximal determinants
 - 1.2.3. Health Determinants in the 21st Century: New Perspectives
- 1.3. Collaborative Culture at the International Level
 - 1.3.1. Structures and Institutions
 - 1.3.2. The Impulse of NGOs: Channels of Collaboration and Weaknesses
 - 1.3.3. The Role of Private Actors in International Health Collaboration
- 1.4. Health and Sustainable Development
 - 1.4.1. Agenda 2030 and Sustainable Development Goals
 - 1.4.2. Health Beyond SDG 3
 - 1.4.3. One Health: One Concept, One Voice, One Policy
- 1.5. New Profiles in Public Health (PH): Human Resources
 - 1.5.1. Data and Communication
 - 1.5.2. New Professional Profiles in Public Health: Technological, Social, and Ethical
 - 1.5.3. Public Administrations Faced with the Challenge of New Profiles
- 1.6. Current Public Health Policies
 - 1.6.1. Public Health Strategies
 - 1.6.2. Public Health and Environmental Challenges
 - 1.6.3. Public Health in the Information Society
- 1.7. Public Health Impact Interventions
 - 1.7.1. Health Impact Assessment
 - 1.7.2. Decision Making and Prioritization of Interventions: Budgetary, Social and Ethical Aspects
 - 1.7.3. Success Stories
- 1.8. International Public Health Projects in Endemic Areas, Outbreaks and Epidemics
 - 1.8.1. Strategies for Health Surveillance in the 21st Century
 - 1.8.2. The COVID19 Pandemic: A Before and After or Just a Temporary Change?
 - 1.8.3. International Collaboration in this Context

- 1.9. Management, Financing and Leadership in Public Health
 - 1.9.1. Public Health Management Models: Health Authority and Provision
 - 1.9.2. Agencies, Centers and Institutes
 - 1.9.3. Public Health Budgets: Decision and Management
- 1.10. Legal Aspects at the International Level in the Context of Public Health
 - 1.10.1. International Standards
 - 1.10.2. Right to Health: Perspective and Comparison
 - 1.10.3. International Health Regulations (IHR)

Module 2. Communication and New Technologies in Public Health

- 2.1. Communication Processes: Transparency, Trust and Communication Strategies in the Mass Media in Public Health
 - 2.1.1. The Communication Process in Public Health
 - 2.1.2. Health Communication
 - 2.1.3. Agents of the Communication Process
- 2.2. Public Health Image, Reputation and Presence
 - 2.2.1. Image and Impact of Public Health
 - 2.2.2. Reputation, Trust and Reliability Importance in Effective Communication
 - 2.2.3. The Future of Public Health Image Post-COVID-19 Scenario and Actions for Improvement
- 2.3. Design of Effective Communication Strategies in Public Health
 - 2.3.1. Communication as a Tool for Public Health Policies, Programs and Interventions
 - 2.3.2. Reaction or Proaction: Communication Planning
 - 2.3.3. Objective, Message, Channels and Agents
- 2.4. Communication Channels: Analysis, Use and Evaluation in Healthcare
 - 2.4.1. Analysis of Health Communication Channels
 - 2.4.2. Strategies and Models of Use of the Different Channels: Segmentation, Scope, and Specific Use
 - 2.4.3. Preliminary Evaluation of the Different Channels and Evaluation of Interventions
- 2.5. Leadership and Communication Styles among Professionals: Coaching and Empowerment in Public Health
 - 2.5.1. Importance of Internal Communication Factors, Styles and Models
 - 2.5.2. Models of Training and Empowerment of Communication Between and by Health Professionals
 - 2.5.3. The Health Professional as the Axis of Communication: the White Coat Loudspeaker and its Particularities in Public Health

- 2.6. Communication in Crisis Situations for Public Health
 - 2.6.1. Crisis Communication and Communication Crisis
 - 2.6.2. Key Factors in Health Crisis Communication: Coping with Uncertainty
 - 2.6.3. Strategies and Agents The Role of the Spokesperson
- 2.7. Social Media Research and Strategy to Improve Accessibility to Truthful and Reliable Information Improving Health Literacy and Increasing Participation
 - 2.7.1. Health in Social Networks: Presence, Treatment and Impact
 - 2.7.2. Social Networks as an Element of Knowledge and Intervention in Health
 - 2.7.3. Disinformation and Health Hoaxes
- 2.8. Research and Use of New Technologies for the Promotion of Health, Community Development and Empowerment of Community Associations
 - 2.8.1. New Technologies as a Tool for Health Equity
 - 2.8.2. Threats and Risks of New Health Technologies
 - 2.8.3. Practical Applications
- 2.9. Quality Analysis: Contribution of New Technologies
 - 2.9.1. Technology Assessment: Objectives, Challenges and Tools
 - 2.9.2. Ethical Factors in the Application of New Technologies in Public Health
 - 2.9.3. Technological Acceleration: Planning in Innovation
- 2.10. Development of Internet of Things Projects in Epidemiology and Public Health and other Emerging Projects
 - 2.10.1. Internet of Things (IoT): Trade-off between Knowledge and Privacy
 - 2.10.2. Real-life Data and Real-time Data: Sources, Analysis, Processing and Use for Knowledge and Decision Making
 - 2.10.3. Artificial Intelligence in Public Health

Module 3. Evaluation of Public Health Policies and Programs

- 3.1. Evaluation of Public Health Policies
 - 3.1.1. Evaluation of Public Health. Historical Framework
 - 3.1.2 International Framework
 - 3.1.3. Present and Future of Evaluation in Public Health
- 3.2. Methodological Aspects of Public Health Evaluation
 - 3.2.1. Dimensions of Evaluation
 - 3.2.2. Evaluation Objectives, Design and Procedure
 - 3.2.3. Qualitative and Quantitative Methods
- 3.3. Health Information Systems Based on Management Indicators.

Development of Indicators

- 3.3.1. Models of Information Systems
- 3.3.2. Design and Construction of a Decision-useful Information System
- 3.3.3. Future of IS: Technical, Ethical and Usability Issues
- 3.4. Qualitative and Quantitative Tools in the Evaluation of Health Programs
 - 3.4.1. Qualitative Methods
 - 3.4.2. Ouantitative Methods
 - 3.4.3. Choice, Advantages and Difficulties
- 3.5. Evaluation and Critical Analysis of Health Outcomes
 - 3.5.1. Data: Sources, Usefulness and Ethical-legal Factors
 - 3.5.2. Measurement and Analysis Models
 - 3.5.3. Use and Limitations of Health Outcomes
- 3.6. Satisfaction of Patients, Staff, Providers and Environment. Analysis and Improvement Cycles
 - 3.6.1. Dimensions of Satisfaction. Perceived Quality
 - 3.6.2. PROMS and PREMS External and Internal Customer Satisfaction
 - 3.6.3. Improvement Cycles: PDCA, DMAIC
- 3.7. Evaluation of Public Health Programs
 - 3.7.1. Assessment Objectives
 - 3.7.2. Evaluation models
 - 3.7.3. Implementation, Redesign and Measurement of SP Interventions
- 3.8. Evaluation of Health Policies
 - 3.8.1. Health in all Policies
 - 3.8.2. Health Impact Assessment
 - 3.8.3. Existence or Non-existence of Non-health Policies
- 3.9. Health Program Studies
 - 3.9.1. Evaluation of Vaccination Programs
 - 3.9.2. Evaluation of Screening Programs
 - 3.9.3. Evaluation of an Environmental Policy
- 3.10. Analysis of Evaluation Plans
 - 3.10.1. The Figure of the Evaluator
 - 3.10.2. Who Monitors the Monitors
 - 3.10.3. Evaluation Policies and Policy Evaluation

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Module 4. Public Health Surveillance

- Protection, Prevention and Surveillance in Public Health: Classification, Evaluation, Management and Risk Control and Communication
 - 4.1.1. Health Protection and Prevention
 - 4.1.2. Risk Health and Management Surveillance
 - 4.1.3. Risk Communication Mechanisms and Limitations
- 4.2. Self-control and Surveillance Systems: Hazard Analysis and Critical Control Points
 - 4.2.1. Establishment of Preventive Protocols
 - 4.2.2 Identification and Risk Assessment
 - 4.2.3. Implementation and Follow-up Control Points
- 4.3. Research and Critical Analysis of Process and Outcome Indicators, Records, and Evaluation Systems Development and Innovation
 - 4.3.1. Research and Analysis of Indicators
 - 4.3.2. Recording and Evaluation for Efficient Data Management
 - 4.3.3. Innovation in Evaluation Systems
- 4.4. Research in the Design, Implementation, and Impact Evaluation of Health Protection and Prevention Programs
 - 4.4.1. Mechanisms for the Design of Health Protection and Prevention Programs
 - 4.4.2. Implementation of Health Protection and Prevention Programs
 - 4.4.3. Analysis of the Impact of Health Protection and Prevention Programs
- Analysis and Interpretation of Epidemiological Data on Environmental Health: Surveillance, Estimation, Plans and Programs
 - 4.5.1. Importance of Environmental Health in Human Health
 - 4.5.2. Exploration of Environmental Epidemiological Data
 - 4.5.3. Practical Application of Environmental Data Analysis
- 4.6. Interpretation of Epidemiological Data on Chronic Diseases and Planning: Surveillance, Estimation, Design of Plans, Programs, and Screening
 - 4.6.1. Epidemiological Analysis of Chronic Diseases Importance of Monitoring
 - 4.6.2. Design and Development of Interventions for Chronic Diseases
 - 4.6.3. Epidemiological Surveillance and Disease Burden Analysis
- 4.7. Research in Primary Prevention of Chronic Diseases: Health Protection
 - 4.7.1. Research in Primary Prevention of Chronic Diseases
 - 4.7.2. Applied Research in Health Prevention and Protection
 - 4.7.3. Impact Evaluation and Communication of Results

- 4.8. Innovation in Pharmacovigilance Monitoring and Prevention Systems: Alerts and Preventive Interventions
 - 4.8.1. Importance of Pharmacovigilance Safety in the Use of Drugs
 - 4.8.2. Advances in Pharmacovigilance Monitoring Systems
 - 4.8.3. Risk Prevention Through Preventive Interventions
- 4.9. Models of Response to Alerts, Epidemic Outbreaks and Emergencies Development of Protocols and Procedures
 - 4.9.1. Response Strategies for Health Emergencies
 - 4.9.2. Development of Crisis Management Protocols
 - 4.9.3. Implementation and Evaluation of Emergency Response
- 4.10. International Health and Innovation in International Cooperation for Epidemiological Surveillance
 - 4.10.1. International Health. Global Perspective on Epidemiological Surveillance
 - 4.10.2. Innovation in International Cooperation for Epidemiological Surveillance
 - 4.10.3. Challenges and Future of International Cooperation in Health

Module 5. Epidemiology and Prevention of Communicable and Non-communicable Diseases

- 5.1. Cancer Epidemiology: Risk Factors and Primary Prevention
 - 5.1.1. Descriptive Epidemiology: Incidence, Mortality and Data Sources
 - 5.1.2. Cancer Risk Factors: Environmental and Occupational
 - 5.1.3. Other Factors: Ultraviolet Light, Infections, Radiation
- 5.2. Risk Factors and Primary Prevention of Cancer: Lifestyle and Screening
 - 5.2.1 Primary Prevention. Risk Factors and Prevention Strategies
 - 5.2.2. Legislative Measures
 - 5.2.3. Secondary prevention
- 5.3. Biological Mechanisms of Cardiovascular Disease Estimation of Cardiovascular Risk and Population Prevention
 - 5.3.1. Ischemic Heart Disease and Stroke
 - 5.3.2. Epidemiological Indicators
 - 5.3.3. Classification of Cardiovascular Risk
 - 5.3.4. Prevention and Control of Cardiovascular Diseases.
- 5.4. Detection of Rare Diseases and Neonatal Screening
 - 5.4.1. Rare Diseases
 - 5.4.2. Newborn Screening Programs
 - 5.4.3. Neonatal Screening for Congenital Metabolic and Endocrinologic Diseases

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- 5.5. Comprehensive Approach to Chronic Disease Prevention for Healthy and Sustainable Aging
 - 5.5.1. Healthy Aging
 - 5.5.2. Active Aging
 - 5.5.3. Integrated Prevention
- 5.6. Epidemiology of Communicable Diseases: Epidemiologic Surveillance Systems and Notifiable Disease Systems
 - 5.6.1. Causal Agents
 - 5.6.2. Time Periods
 - 5.6.3. Transmission
 - 5.6.4. Host and Susceptible Population
 - 5.6.5. Epidemiological Surveillance Systems
- 5.7. Utility of Vaccines in the Prevention of Immunopreventable Infectious Diseases
 - 5.7.1. Analysis of the Importance of Vaccination in the Prevention of Infectious Diseases at the Individual and Community Levels
 - 5.7.2. Evolution of Vaccines: Types of Vaccines Currently Available
 - 5.7.3. Mechanisms of Action of Vaccines and Their Impact on the Immune System
 - 5.7.4. Efficacy and Safety of Vaccines in the Prevention of Infectious Diseases
 - 5.7.5. Importance of Vaccination in Risk Groups and in the Prevention of Epidemics
 - 5.7.6. Logistics and Vaccination Programs at the International Level
 - 5.7.7. Economic and Social Impact of Vaccination in the Prevention of Infectious Diseases
 - 5.7.8. Research and Analysis of Barriers and Challenges in the Implementation of Vaccination Programs
 - 5.7.9. Strategies and Measures to Promote Vaccination and to Raise Public Awareness of its Importance
 - 5.7.10. Evaluation and Critical Analysis of the Scientific Literature Related to Vaccines and their Usefulness in the Prevention of Infectious Diseases
- 5.8. Emerging diseases. Epidemic Outbreaks
 - 5.8.1. Factors Favoring Emerging Diseases
 - 5.8.2. New Agents and Diseases
 - 5.8.3. International Health Regulations (IHR)
 - 5.8.4. Epidemic Outbreaks. Study, Control and Measures: Chemoprophylaxis, Immunoglobulins and Vaccines

- 5.9. Viral Hepatitis, HIV infection, AIDS, Sexually Transmitted Infections (STIs) and Tuberculosis
 - 5.9.1. Hepatitis A: Etiology, Epidemiology and Preventive Measures
 - 5.9.2. Hepatitis B: Etiology, Epidemiology and Preventive Measures
 - 5.9.3. Other Viral Hepatitis: Etiology, Epidemiology and Preventive Measures
 - 5.9.4. HIV: Etiology, Epidemiology and Preventive Measures
 - 5.9.5. Sexually Transmitted Infections (STIs): Etiology, Epidemiology, and Preventive Measures
 - 5.9.6. Tuberculosis: Etiology, Epidemiology and Preventive Measures
- 5.10. Meningococcal Disease (MD) and Zoonosis: Epidemiology Prevention and Control
 - 5.10.1. Epidemiology of Meningococcal Disease
 - 5.10.2. Prevention and Control of Meningococcal Disease
 - 5.10.3. Epidemiology of Zoonoses
 - 5.10.4. Prevention and Control of Zoonoses

Module 6. Clinical Epidemiology

- 6.1. Design and Quality Assessment of Intervention Studies in Epidemiology
 - 6.1.1. Intervention Studies, Types and Key Design Elements
 - 6.1.2. Ethical Aspects of Intervention Research
 - 6.1.3. Design of Specific Intervention Studies
 - 6.1.4. Tools for Assessing the Quality of Intervention Studies
 - 6.1.5. Critical Appraisal of Intervention Studies
 - 6.1.6. Importance of Design and Quality Assessment
- 6.2. Pragmatic vs. Explanatory Randomized Clinical Trials
 - 6.2.1. Differentiation Between Pragmatic and Explanatory Clinical Trials
 - 6.2.2. Ethical Implications of Each Approach
 - 6.2.3. Critical Evaluation of the Methodology and Design of Each Type of Trial
 - 6.2.4. Application of Knowledge to Clinical Practice and Research
 - 6.2.5. Promotion of Critical Thinking and Analytical Skills
 - 6.2.6. Design and Conduct of Clinical Studies
- 6.3. Design of Diagnostic Test Studies
 - 6.3.1. Selection of the Study Population and Definition of Inclusion and Exclusion Criteria
 - 6.3.2. Determination of the Study Design and Selection of the Reference Methodology
 - 6.3.3. Calculation of Diagnostic Accuracy and Analysis of Results

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- 6.4. Evaluation of the Quality of a Diagnostic Test Study
 - 6.4.1. Study Validity Analysis
 - 6.4.2. Evaluation of the Accuracy of the Diagnostic Test
 - 6.4.3. Analysis of the Clinical Utility of the Diagnostic Test
- 6.5. Design and Quality Assessment of Prognostic Factor Studies
 - 6.5.1. Selection and Definition of Prognostic Factors
 - 6.5.2. Study Design and Selection of the Study Population
 - 6.5.3. Evaluation of the Quality of the Study and the Prognostic Model
- 6.6. Evidence-based Clinical Recommendations: GRADE 1
 - 6.6.1. Systematic Review of the Scientific Literature Identification of Clinical Recommendations
 - 6.6.2. Quality of Evidence and Strength of Recommendations
 - 6.6.3. Clinical Recommendations Applicable to Clinical Practice
 - 6.6.4. Development of Clinical Protocol or Clinical Guideline Based on the Identified Recommendations
 - 6.6.5. Implementation and Follow-up of the Clinical Protocol or Guideline in Patient Care Evidence and Focus on Improving Clinical Outcomes
 - 6.6.6. Periodic Evaluation, through Monitoring of Clinical Outcome Indicators and Feedback from the Health Professionals Involved
- 6.7. Evidence-based Clinical Recommendations: GRADE 2
 - 6.7.1. Analysis and Synthesis of the Available Evidence in the Scientific Literature for the Development of Recommendations
 - 6.7.2. Identification and Evaluation of the Quality of the Relevant Studies that Support the Clinical Recommendations
 - 6.7.3. Application of the Principles of the GRADE Methodology to Establish the Strength and Certainty of Clinical Recommendations
 - 6.7.4. Developing Clinical practice Guidelines that Incorporate Evidence-based Recommendations and that are Useful for Clinical Decision-Making
 - 6.7.5. Periodic Updating and Revision of Clinical Recommendations Based on the Available Scientific Evidence
- 6.8. Evaluation of the Quality of Care
 - 6.8.1. Quality Criteria and Standards from the Point of View of Safety
 - 6.8.2. Evaluation of the Effectiveness of the Results obtained through the Actions Evaluated of the Actions Evaluated and their Components
 - 6.8.3. Measurement of Patient Outcomes and Experiences, Patient-Reported Outcome Measures (PROM) and Patient-Reported Experience Measures (PREM)
 - 6.8.4. Indicators for Assessing the Degree of Involvement, Participation and Satisfaction of Healthcare Professionals

- 6.9. Incorporation of Patients' Values and Preferences: Shared Decisions
 - 6.9.1. Effective Communication and Understanding of Values and Preferences
 - 6.9.2. Education and Counseling on Treatment Options
 - 6.9.3. Facilitation of Shared Decision Making
- 6.10. Patient Security.
 - 6.10.1. Identification and Recording of Adverse Events
 - 6.10.2. Analysis of Errors and Underlying Causes
 - 6.10.3. Implementation of Corrective Actions and Prevention Measures

Module 7. Research Methodology in Epidemiology

- 7.1. Biostatistics: Univariate, Bivariate and Multivariate Analysis
 - 7.1.1. Types of Variables
 - 7.1.2. Normality Study of a Distribution. Parametric and and non-parametric
 - 7.1.3. Dependent and Independent Variables. Confounding Factors
 - 7.1.4. Identification of the Necessary Statistical Tests
- 7.2. Models and Methods in Multivariate Statistics of Dependence and Interdependence: Statistical Inference Standardization and Prediction Multiple Linear Regression Regression and Cluster Analysis
 - 7.2.1. Regression Models
 - 7.2.2. Multivariate Models: Multiple Linear Regression
 - 7.2.3. Cluster Analysis
- 7.3. Models and Methods in Multivariate Structural Statistics: Logistic Regression, Poisson Regression, Survival Analysis and Longitudinal Data. Kaplan-Meier and Log-Rank Statistics
 - 7.3.1. Multivariate Models: Logistic Regression
 - 7.3.2. Kaplan-Meier and Log-Rank Survival Analysis
 - 7.3.3. Poisson Regression
- 7.4. Incidence and Prevalence Models in Public Health
 - 7.4.1. Incidence Studies
 - 7.4.2. Prevalence Studies
 - 7.4.3. Risk Analysis

- 7.5. Computer Software: Advanced Statistical Analysis with SPSS Package
 - 7.5.1. Statistical Packages: R®, STATA® and Epidat®
 - 7.5.2. Use of the SPSS® Package
 - 7.5.3. Interpretation of the Results of Statistical Analysis Performed by SPSS® and Evidence-based Decision Making
 - 7.5.4. Effective Communication of Statistical Findings to Specialized and Non-Specialized Audiences.
- Qualitative Methodology Applied to Public Health: Theoretical, Conceptual, and Ethical Aspects
 - 7.6.1. Qualitative Evaluation Applied to Public Health
 - 7.6.2. Techniques of Qualitative Research Applied to Public Health
 - 7.6.3. Collection, Analysis and Interpretation of Qualitative Data in Public Health Studies: Validity, Reliability and Generalization of the Results
 - 7.6.4. Ethical Principles: Protection of Participants' Confidentiality and Management of Potential Ethical Conflicts
 - 7.6.5. Integration of the Qualitative Perspective in the Planning, Implementation, and Evaluation of Public Health Programs and Policies: Design of Effective Interventions Focused on the Needs of the Population
- 7.7. Design and Phases of Qualitative Research in Public Health. Sampling Designs
 - 7.7.1. Design and Phases of Qualitative Research
 - 7.7.2. Sampling
 - 7.7.3. Elaboration and Justification of the Data Collection Instruments
 - 7.7.4. Data Analysis Process
 - 7.7.5. Establishment and Justification of the Validity and Reliability Criteria of the Investigation
 - 7.7.6. Design and Justification of the Plan for Communication and Dissemination of the Results
- 7.8. Designs of Interest for Public Health Information Collection Techniques
 - 7.8.1. Sampling
 - 7.8.2. Surveys Survey Design
 - 7.8.3. Validation of Ouestionnaires
- 7.9. Analysis and Interpretation of Results Digital Analysis of Qualitative Data
 - 7.9.1. Text Analysis Software
 - 7.9.2. Data Visualization Software
 - 7.9.3. QDA (Qualitative Data Analysis) Software
 - 7.9.4. Artificial Intelligence applied to Qualitative Studies

- 7.10. Evaluation, Rigor and Ethics in Qualitative Research in Public Health
 - 7.10.1. Ethical Principles of Research
 - 7.10.2. International Legislation and Regulations
 - 7.10.3. Health Care Ethics Committee

Module 8. Health Promotion and Evaluation

- 8.1. Health Literacy and Development of Literacy Tools and Models
 - 8.1.1. Relationship between Literacy and Health Improving Health Outcomes of the Population
 - 8.1.2. Design and Implementation of Health Literacy Programs Targeting Vulnerable Groups and Marginalized Communities
 - 8.1.3. Effective Communication Strategies Adapted to Different Cultural and Linguistic Contexts
 - 8.1.4. Evaluating the Effectiveness of Health Literacy Programs through the Application of Appropriate Evaluation Tools and Models
 - 8.1.5. Integrating Health Literacy into Public Health Policies and Programs
 - 8.1.6. Research and Development of New Technologies and Digital Tools to Improve Health Literacy and Health Promotion in Digital Environments
- 8.2. Salutogenesis, a Model of Health Assets
 - 8.2.1. Salutogenesis: Health Promotion Approach
 - 8.2.2. Health Asset Models
 - 8.2.3. Practical Applications of Health Asset Models in the Planning, Implementation and Evaluation of Health Promotion Interventions
 - 8.2.4. Evaluation of the Effectiveness and Relevance of Health Asset Models in Different Settings and Populations
 - 8.2.5. Design and Implementation of Strategies Based on Salutogenesis and Health Asset Models to Promote Health and Wellness in Different Settings and Communities
- 8.3. Community Intervention and Community-oriented Primary Care
 - 8.3.1. The Scope of Community Intervention and Primary Care: Promoters of Health and Wellness in the Population
 - 8.3.2. Implementation and Evaluation of Community Intervention Projects in Different Contexts and Populations: Principles of Equity, Participation and Sustainability
 - 8.3.3. Comprehensive Approach: Networking and Interdisciplinary Collaboration between Health Professionals, Social Services, Education and other Sectors
 - 8.3.4. Tools and Strategies for Health Promotion, Disease Prevention and the Promotion of Healthy Lifestyles in the Community

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- 8.3.5. Importance of Participation, Community Empowerment and Health Equity: Fundamental Principles for Improving the Quality of Life of the Population
- 8.3.6. Identifying and Addressing the Social Determinants of Health and Health Inequalities: Equity and Justice in Access to Health and Welfare Services
- 8.3.7. Critical Reflection on Health Policies and Programs in Community and Primary Care: Improvement and Adaptation to the Needs and Demands of the Population
- 8.4. Community Intervention Programs with an Ethical and Equitable Perspective
 - 8.4.1. Ethics in Public Health
 - 8.4.2. Principles of Equity in Community Intervention
 - 8.4.3. Interprofessionalism in Community Intervention: Creation of International Strategic Alliances
 - 8.4.4. Potential of Information and Communication Technologies (ICTs) and e-Health for the Promotion of Health
 - 8.4.5. Implementation of e-Health Strategies in Community Intervention Programs
- 8.5. Health Promotion and Protection at the Local Level from an International Approach
 - 8.5.1. Intersectoriality
 - 8.5.2. Social Map
 - 8.5.3. Social Actors of the Community from Different Sectorial Areas and the Administration
 - 8.5.4. Research Guidelines, Time, Universe, and Sample
 - 8.5.5. Universal, Replicable, Multi-center Collaborative Models
 - 8.5.6. Indicators of Assessment
 - 8.5.7. Research and Action of Replicable Collaborative Models
- 8.6. Research in Social and Community Participation
 - 8.6.1. Community and Social Participation
 - 8.6.2. Research and Action in Community and Social Participation
 - 8.6.3. Interdiscipline, Transdiscipline, Eco-Environmental, Sustainable and Sustainable
 - 8.6.4. Key Families and Strategic Groupings in the Community
 - 8.6.5. Fundamentals of Research and Action Appropriate to Each Place
 - 8.6.6. Quantitative and Qualitative Evaluation Measures
 - 8.6.7. Focus Groups
 - 8.6.8. Indicators and Utilization
 - 8.6.9. Strategic Indicators Appropriate to Each Site
 - 8.6.10. Health Team Involved in Research and Action
 - 8.6.11. The Scope of the Action Research
 - 8.6.12. Evaluation of the Sample

- 8.7. Methods of Idea Generation and Design of Health Promotion/Health Education (HPE) Campaigns
 - 8.7.1. Methods of Generating Ideas for the Design of Health Promotion, Health Education and Disease Prevention Campaigns
 - 8.7.2. Analysis of the Specific Needs and Characteristics of the Target Audience in Order to Adapt Communication and Promotion Strategies to their Needs and Preferences
 - 8.7.3. Creative Tools and Techniques to Generate Innovative and Effective Ideas in the Design of Health Promotion Campaigns
 - 8.7.4. Educational Messages and Materials: Clear, Informative and Persuasive
 - 8.7.5. Evaluating the Effectiveness of Health Promotion Campaigns: Adjustments to Improve Results
- 8.8. Complex Models and Methods in Health Education
 - 8.8.1. Theory of Change: Determinants of Human Behavior and Strategies to Change them towards Healthier Behaviors
 - 8.8.2. Social Determinants of Health Approach: Sociopolitical, Economic and Cultural Factors in Influencing the Health of Populations
 Addressing Inequities
 - 8.8.3. Community Empowerment Models: Strengthening Communities to Make Healthy Decisions and Achieve Positive Changes in their Environment
 - 8.8.4. Theories of Health Behavior: Beliefs, Attitudes and Motivations of People
 - 8.8.5. Participatory Methods in Health Education: Involving People and Communities in the Design, Implementation and Evaluation of Health Programs Collaboration and Autonomy
- 8.9. Elaboration, Development and Design of Programs in Health Education
 - 8.9.1. Design and Development of Health Education Programs: Identification of Needs, Formulation of Objectives, Selection of Methods and Intervention Strategies and Planning of Activities
 - 8.9.2. Implementation Strategies: Accessibility, Equity and Sustainability of Health Programs
 - 8.9.3. Partnerships and Collaborations with Relevant Institutions and Organizations to Strengthen Health Program Implementation
 - 8.9.4. Continuous and Systematic Evaluation of Health Program Implementation: Identification of Challenges, Necessary Adjustments, and Opportunities for Improvement
 - 8.9.5. Active Participation of the Community in the Implementation of Health Programs: Fostering Community Ownership and Sustainability of the Actions Carried Out
 - 8.9.6. Ethical Principles that Govern the Implementation of Health Education Programs: Ethics and Responsibility towards the Communities and Beneficiary Populations

- 8.10. Research and Evaluation of the Impact of Collaborative and Educational Models
 - 8.10.1. Health Research: Protocol Development, Data Collection and Analysis, and Scientific Report Writing
 - 8.10.2. Evaluation of the Impact of Educational Programs on the Health of the Population, use of Qualitative and Quantitative Evaluation Tools
 - 8.10.3. Importance of Interdisciplinarity in the Design and Evaluation of Health Education Projects Collaboration Among Professionals as an Enhancer of Results
 - 8.10.4. Effective Communication of Research and Evaluation Results to Health Professionals and the General Community

Module 9. Public Health in Situations of Vulnerability

- 9.1. Children and Health
 - 9.1.1. Environmental Threats
 - 9.1.2. Obesity and Non-communicable Diseases
 - 9.1.3. Trauma, Violence and Conflict
- 9.2. Adolescence and Health
 - 9.2.1. Sexual and Reproductive Health: Contraception, Communicable Diseases, Sexual Abuse, Intimate Partner Violence
 - 9.2.2. Traffic Accidents, Suicide, Interpersonal Violence
 - 9.2.3. Abuse of Psychoactive Substances
 - 9.2.4. Nutrition and Physical Activity
- 9.3 Health and Gender
 - 9.3.1. Gender as a Determinant of Health Inequity
 - 9.3.2. Intersectionality
 - 9.3.3. Gender-Based Violence
- 9.4. Occupational Health
 - 9.4.1. Mental Health in the Work Environment
 - 9.4.2. Healthy Teleworking
 - 9.4.3. Occupational Hazards in Health Care Workers
- 9.5. Health in Multicultural Contexts
 - 9.5.1. Cultural Validation and Negotiation
 - 9.5.2. Multilingual Communication
 - 9.5.3. The COVID-19 Pandemic as an Exacerbator of Inequalities

- 9.6. Health and Aging
 - 9.6.1. Healthy Aging Decade of Healthy Aging
 - 9.6.2. Geriatric Syndromes
 - 9.6.3. Integrated Care and Primary Health Care Focused on the Elderly Person
- 9.7. Mental Health and Well-being
 - 9.7.1. Determinants of Mental Health
 - 9.7.2. Mental Health Promotion and Prevention of Mental Health Conditions
 - 9.7.3. Mental Health Care and Treatment
- 9.8. Nutritional Problems and their Impact on Global Health
 - 9.8.1. Malnutrition: Undernutrition, Vitamin and Mineral Imbalance, Overweight, and Obesity
 - 9.8.2. Diet-related Noncommunicable Diseases: Diabetes, Hypertension, Heart Disease, Stroke and Cancer
 - 9.8.3. Healthy diet
 - 9.8.4. Nutritional Safety Versus Food Safety
- 9. Migration and Health Health in Emergencies and Humanitarian Crises
 - 9.9.1. Common Health Needs and Vulnerabilities of Refugees and Migrants
 - 9.9.2. Barriers to Access to Services for Refugees and Migrants
 - 9.9.3. Preparedness and Resilience to Emerging Threats (PRET) Initiative
- 9.10. Communicable and Non-communicable Diseases
 - 9.10.1. Sexually Transmitted Infections (STIs) Controlling the Spread on a Global Scale
 - 9.10.2. Communicable Diseases Measures Against Risk Factors
 - 9.10.3. Vector-borne Diseases

Module 10. Environmental Health

- 10.1. Environmental Health: Health Impact Assessment One Health Approach
 - 10.1.1. Environmental Health through Environmental Determinants of Health
 - 10.1.2. Interaction of Health and Environment with One Health Approach
 - 10.1.3. Health in all Policies Health Impact Assessment Tools

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	10.2.	Water	Quality:	Water	Sup	pl	V
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- 10.2.1. Sanitary Quality of Water: Sources of Contamination and Health Risks Emerging Contaminants
- 10.2.2. Infrastructures of Water Supplies for Human Consumption
- 10.2.3. Drinking Water Treatment Products for the Treatment of Drinking Water
- 10.2.4. Quality Control of Water for Human Consumption
- 10.2.5. Disinfection By-products
- 10.2.6. Communication of Water Quality to the Population
- 10.3. Water Quality Recreational Waters: Swimming Pool and Bathing Waters
 - 10.3.1. Risks Associated with the Use of Recreational Waters
 - 10.3.2. Requirements for Swimming Pool and Water Park Facilities
 - 10.3.3. Treatments to Ensure Water and Air Quality Products
 - 10.3.4. Control of the Sanitary Quality of Water and Air
 - 10.3.5. Bathing Water Quality Requirements
 - 10.3.6. Water Pollution Prevention Measures
 - 10.3.7. Sanitary and Environmental Monitoring and Control of Bathing Waters
 - 10.3.8. Communication of Risks to the Population
- 10.4. Environmental Management of Legionellosis
 - 10.4.1. Bacteria From an Environmental Health Perspective
 - 10.4.2. Facilities and Equipment Involved and Preventive Measures
 - 10.4.3. Control Strategies and Responsibilities
 - 10.4.4. Examples of Cases and Outbreaks Apprenticeships
- 10.5. Public Health and Chemical Safety
 - 10.5.1. International Chemical Risk Management
 - 10.5.2. Hazard Classification and Communication: Labeling and Safety Data Sheets
 - 10.5.3. Registers for the Protection of Human Health and the Environment against Chemical Hazards Evaluation, Authorization and Restrictions of Chemical Substances
 - 10.5.4. Biocides Administrative Control Over Activities and Users





Structure and Content | 41 tech

- 10.6. Environmental Management of Vector-borne Diseases
 - 10.6.1. Main Vectors
 - 10.6.2. Impact on Health
 - 10.6.3. Vector Control Strategies
- 10.7. Public Health Impact of Contaminated Soil, Solid Waste and Contaminated Wastewater
 - 10.7.1. Contaminating and Emerging Sources
 - 10.7.2. Pollution Prevention Measures
 - 10.7.3. Monitoring Systems and Control Strategies
- 10.8. Monitoring and Control of Physical Contamination and Natural Radioactivity to Protect Public Health
 - 10.8.1. Natural Radioactivity
 - 10.8.2. Routes of Exposure
 - 10.8.3. Radioactivity in Drinking Water and its Regulations
 - 10.8.4. Radon as a Parameter in Indoor Air Quality and its Management
- 10.9. Public Health Protection Air Quality: Atmospheric Pollution
 - 10.9.1. Air Quality Analysis
 - 10.9.2. Pollutant Sources and Health Risks Associated with Air Quality
 - 10.9.3. Monitoring Systems and Control Strategies
 - 10.9.4. Communication of Risks to the Population
- 10.10. Climate Change and Health
 - 10.10.1 Climate Change
 - 10.10.2. Actions to Address Climate Change
 - 10.10.3. Influence of Climate Change and Health
 - 10.10.4. Climate Change and Social Determinants of Health

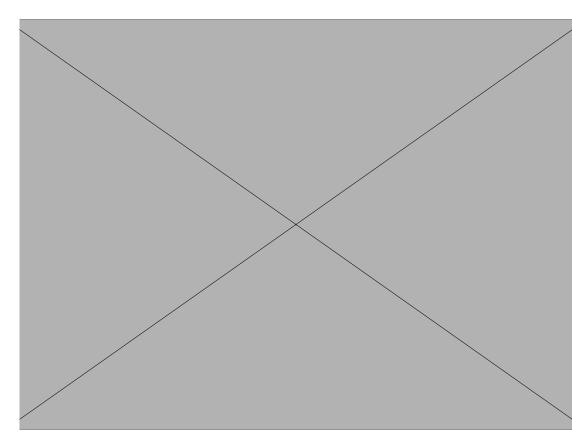


tech 44 | Methodology

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.



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.



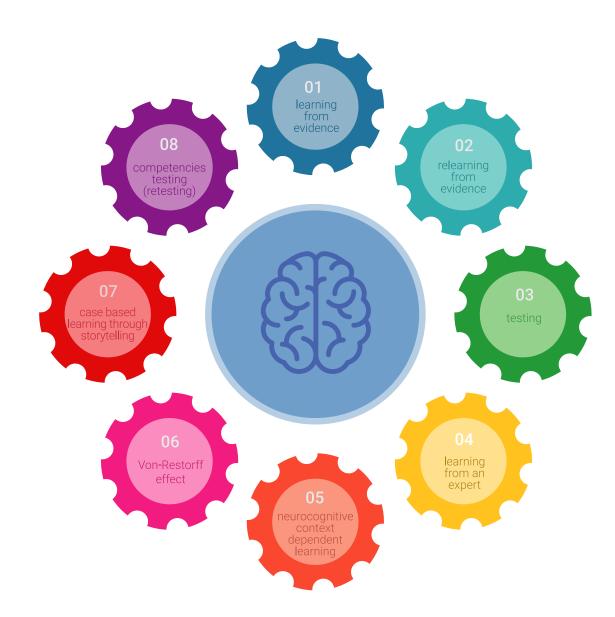


Relearning Methodology

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.



Methodology | 47 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 48 | Methodology

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

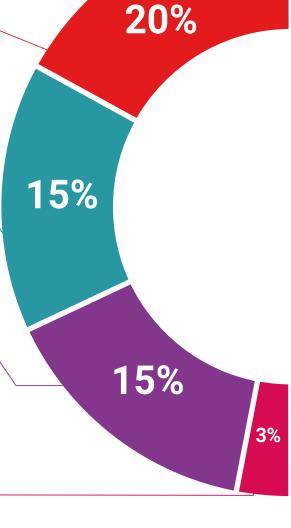
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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

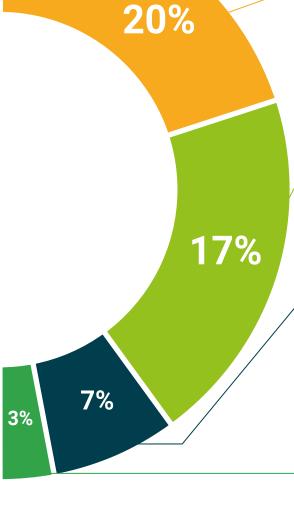
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



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.









tech 52 | Certificate

This private qualification will allow you to obtain a **Professional Master's Degree in 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: Professional Master's Degree in Public Health

Modality: online

Duration: 12 months

Accreditation: 60 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.

health confidence people

deducation information tutors
guarantee accreditation teaching
institutions technology learning
community commitment.



Professional Master's Degree

Public Health

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

