

# Professional Master's Degree

## Occupational Medicine and Health





## Professional Master's Degree Occupational Medicine and Health

Course Modality: Online

Duration: 12 months

Certificate: TECH Technological University

Official N° of hours: 1,500 h.

Website: [www.techtute.com/medicine/professional-master-degree/master-occupational-medicine-health](http://www.techtute.com/medicine/professional-master-degree/master-occupational-medicine-health)

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# 01

# Introduction

Occupational health is a fundamental area that allows workers in all sectors to avoid routine actions that can lead to physical or psychological problems in the future. For this reason, the role of the occupational physician has become essential and, therefore, there is a growing need to create training courses adapted to these jobs, which will enable professionals to broaden their knowledge and, consequently, improve the health of workers.





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*Maintaining health checks in the workplace allows employees to correct certain routines that could lead to long-term physical harm. Get prepared with TECH and help reduce this risk”*



Occupational Medicine and Health can be described as a medical activity focused on the detection of risk factors, in order to preventively avoid the development of situations that may lead to injury or disease. Thus, one of the objectives of this profession is to promote actions that generate well-being, preventing certain activities from damaging the health of workers.

The physician specializing in this field must be qualified to practice assistance medicine, when required, and to assess the damage within the work environment and the sequelae arising from it in the environment of their occupations. Therefore, professionals in this area must be specialized to know, analyze and correct each and every one of the circumstances that may intervene in a person, taking into account in a very special way their relationship with work.

This Professional Master's Degree takes into account the permanent changes in the work environment and in the individuals themselves, which mean that occupational health professionals must ensure that they are kept up to date. Thus, the student will have access to detailed and up-to-date information to develop the activities and suitable actions that may arise in different environments: health promotion and prevention; knowledge, assessment and control of occupational risks; organization and management of occupational health or the implementation of quality control systems.

It also offers students an interesting update on ergonomics and its practical application in the workplace. To this end, extensive training has been designed in specific assessment of the workers in their work environment: updating in occupational pathology and technopathologies, which will be sufficient support for the student to know the relevant and up-to-date aspects to carry out preventive and assistance activities. Finally, knowledge of labor and health law will be strengthened, as well as knowledge of research and epidemiology in occupational health.

In addition, this Professional Master's Degree has the advantage of being developed in a 100% online format, so students will be in charge of deciding when and where to study, distributing their study hours autonomously, so that they can combine their training time with the rest of their daily commitments.

This **Professional Master's Degree in Occupational Medicine and 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 Occupational Medicine and Health
- The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- Updates on occupational health and safety
- Practical exercises where self-assessment can be used to improve learning
- Emphasis on innovative methodologies in Occupational Medicine and Health
- 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



*We offer a very complete program to be developed in the field of occupational health. Don't think twice and enroll with TECH"*

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*This Professional Master's Degree is the best investment you can make in the selection of a refresher program to update your knowledge in Occupational Medicine and Health"*

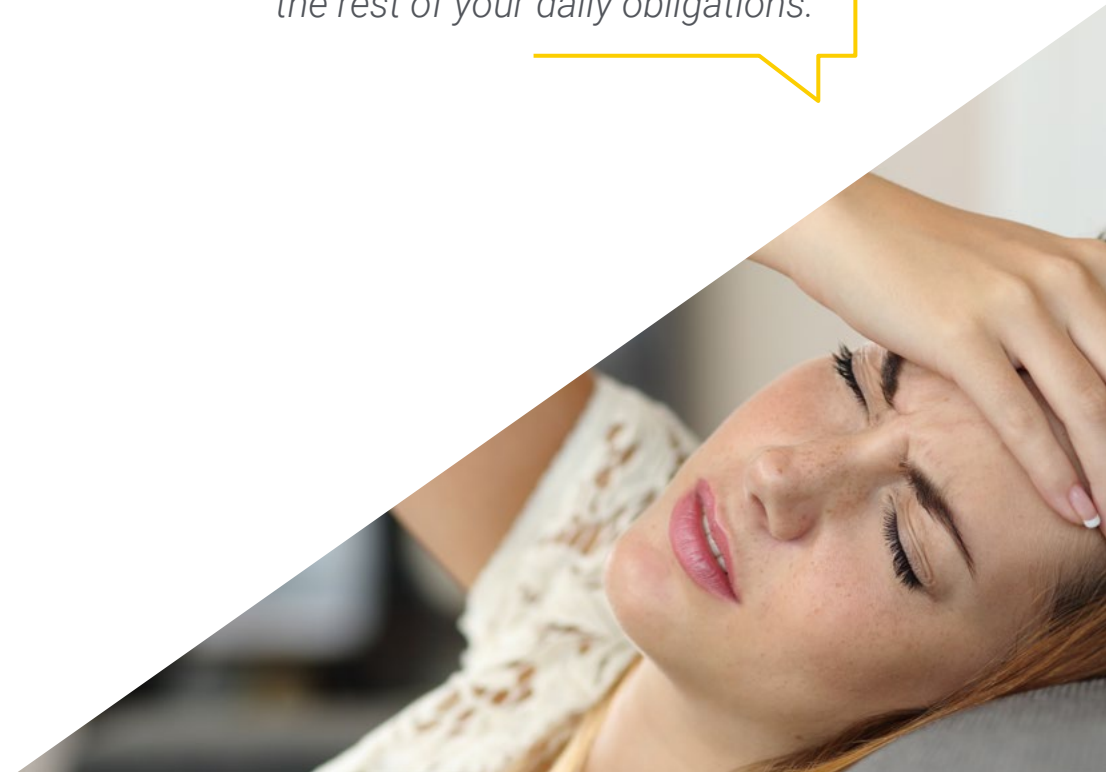
The program includes in its teaching staff professionals belonging to the field of Radiation Oncology, who pour into this program the experience of their work, as well as renowned specialists from leading societies and prestigious universities.

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 an immersive training experience designed to train for real-life situations.

This program is designed around Problem Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the program. For this purpose, the specialist will be assisted by an innovative interactive video system developed by renowned and experienced experts in Occupational Medicine and Health.

*We offer you an interactive video system which makes it easier for you to study this program.*

*The 100% online program and the innovative educational methodology will allow you to combine your studies with the rest of your daily obligations.*



# 02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the physician can master in a practical and rigorous way, the tasks of Occupational Health and Safety.







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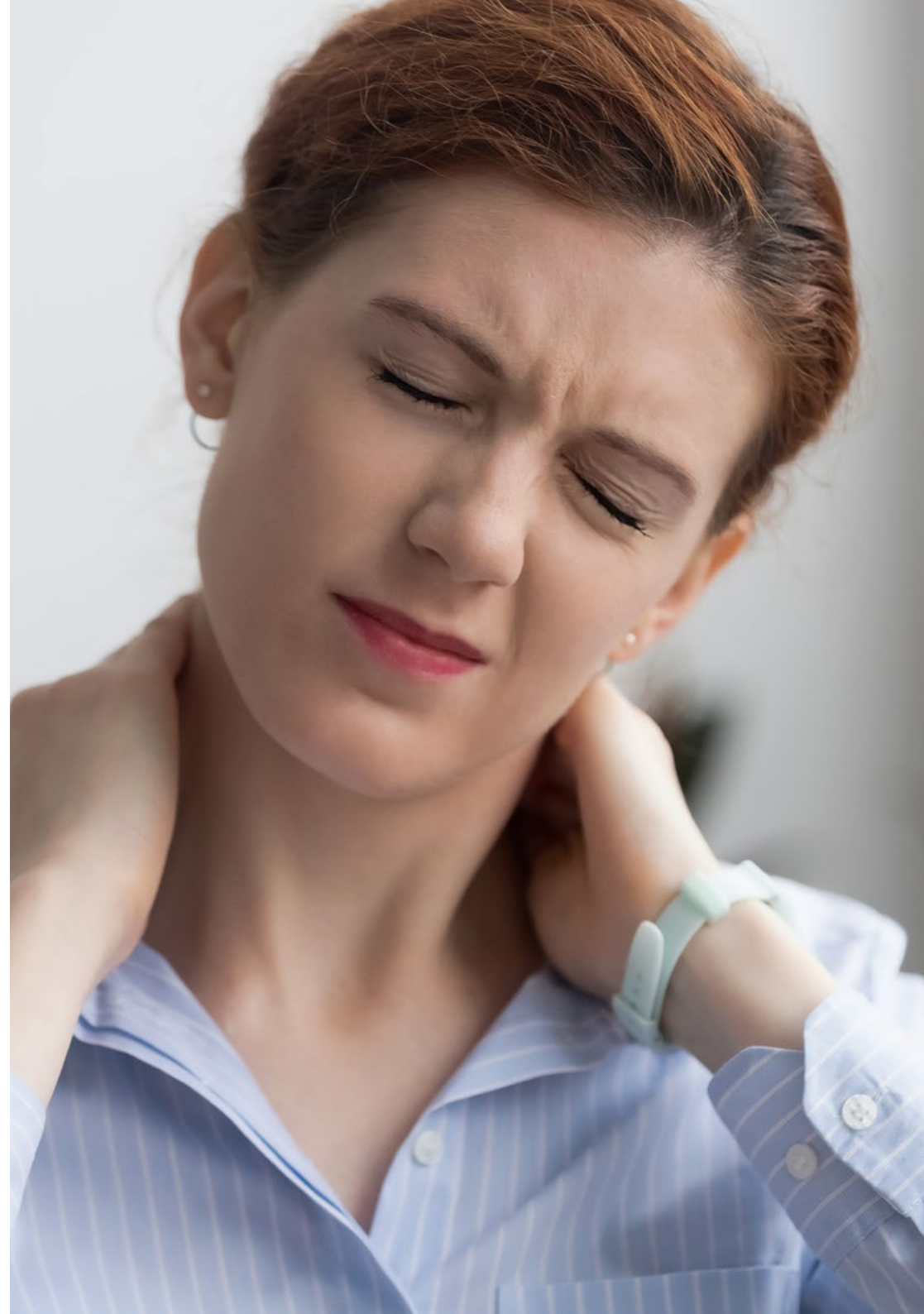
*Our main objective is to help our students to achieve academic and professional excellence”*



## General Objectives

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- Have sufficient knowledge to provide a basis or opportunity for originality in the development and/or application of ideas, often in a research context
- Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study
- Be able to integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- Communicate its conclusions and the ultimate knowledge and rationale behind them to specialized and non-specialized audiences in a clear and unambiguous manner
- Manage the learning skills that will enable them to continue studying in a largely self-directed or autonomous manner





## Specific Objectives

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### Module 1. Introduction to Occupational Health and Occupational Medicine

- ◆ Know in depth the historical and scientific background of Occupational Health and Occupational Medicine
- ◆ Deepen the scientific basis of health determinants in the working population
- ◆ Deepen in the scientific foundations that govern the cause-effect relationship in occupational health
- ◆ Specialize, from a general point of view, in the possible risk situations faced by the working population
- ◆ In-depth knowledge of the demographic aspects within the work environment
- ◆ Specialize in national and international organizations with a bearing on occupational health

### Module 2. Health Promotion and Ethics in the Workplace

- ◆ Be able to carry out health promotion activities aimed at the control and improvement of workers' health
- ◆ Enable the student to promote the active participation of workers in health programs
- ◆ Know how to develop effective health programs on workers' behaviors, habits and lifestyles
- ◆ Be prepared to develop activities to promote vaccination campaigns in the workplace and in the public sector
- ◆ Be able to develop activities that promote a healthy environment both at company and public health level

- ◆ Enable the student to know and put into practice the good medical practices derived from the deontological codes
- ◆ Have the ability to perform well in daily medical acts and the correct use of clinical information, taking into account the confidentiality of data

### Module 3. Quality of Occupational Medicine

- ◆ Enable the student, from a practical point of view, to measure quality and implement programs to improve it and the services involved in Occupational Health
- ◆ Deepen in the processes and procedures related to the certification of quality in the services involved in Occupational Health
- ◆ Specialize in the methodology established in prevention audits
- ◆ Know how to control, in an adequate and correct way, the information related to workers' health

### Module 4. Specific Assessment of the Worker in his or her work Environment

- ◆ Perform an adequate and correct identification and evaluation of the risks derived from the different types of work activities
- ◆ Decide on the necessary preventive measures according to the risks detected
- ◆ Know how to carry out the medical protocolization according to the specific risks of the worker in his work environment
- ◆ Train the student in the interpretation and application of the different and current specific medical protocols
- ◆ Be able to measure the effectiveness of preventive measures
- ◆ Prepare and enable the student for the preventive investigation of health damages

- ♦ Carry out a correct assessment of bodily injury in the workplace
- ♦ Correct and appropriate application of existing scales
- ♦ Prepare and enable the student to carry out a correct assessment of disability
- ♦ Knowing how to make the profesigram according to the type of activity
- ♦ Identify the particularly sensitive workers and act accordingly based on the work activity they perform
- ♦ Update the student in the management and prevention of biological risks and have at hand the most recent data on prevention in the workplace before COVID-19
- ♦ Know how to prepare a medical-occupational report

#### **Module 5. Risks in the Work Activity: Regulations, Factors Involved, Detection and Control**

- ♦ Enable the student to detect, evaluate and control fire and explosion hazards in a practical way
- ♦ Train the student to detect, evaluate and control the risks of electrical accidents in a practical way
- ♦ Enable the student to detect, evaluate and control risks related to the use of machines and tools in a practical way
- ♦ Enable the student to practically detect, assess and control the risks associated with exposure to noise and vibration
- ♦ Enable the student to practically detect, evaluate and control the risks derived from the thermal environment
- ♦ Enable the student to practically detect, evaluate and control the risks associated with radiation exposure
- ♦ Enable the student to practically detect, evaluate and control chemical risks
- ♦ Enable the student to detect, evaluate and control biological risks in a practical way

- ♦ Train the student to detect, evaluate and control psychosocial risks in a practical way
- ♦ Enable the student to carry out, in a practical way, the correct management of industrial waste
- ♦ Enable the student to detect, evaluate and control emerging risks in a practical way

#### **Module 6. Ergonomics and Psychosociology**

- ♦ Know in depth the scientific bases of physiology and physical loading in order to be able to apply them
- ♦ Specialize in order to apply the scientific bases of human biomechanics
- ♦ Perform a correct and adequate ergonomic assessment of tasks and workstations
- ♦ Perform ergonomic assessment and improvement of tasks involving manual handling of loads
- ♦ Perform ergonomic assessment and improvement of tasks with associated risk of musculoskeletal injury
- ♦ Implement an ergonomic management and intervention system
- ♦ Carry out a correct and adequate assessment of the organizational conditions of the workplace
- ♦ Enable the student to carry out a correct and adequate assessment of the ergonomic conditions dependent on the work environment

#### **Module 7. Occupational Pathology**

- ♦ Update the student in the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Respiratory diseases and their relationship with the work activity
- ♦ Update the student on the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Dermatological diseases and their relationship with the work activity

- ♦ Update the student in the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Cardiocirculatory pathologies and their relationship with the work activity
- ♦ Update the student in the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Otorhinolaryngology diseases and their relationship with the work activity
- ♦ Update the student in the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Ophthalmologic injuries and diseases and their relationship with the work activity
- ♦ Update the student on the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Infectious diseases and their relationship with the work activity
- ♦ Update the student in the etiology, clinical manifestations, diagnosis and treatment of the most prevalent Traumatological injuries and diseases and their relationship with the work activity
- ♦ Update the student in Rehabilitation and Physiotherapy techniques in the treatment of injuries in the workplace

#### **Module 8. Technopathies**

- ♦ Train the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the steel and metallurgy industry
- ♦ Train the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the mechanical industry
- ♦ Train the student, in a practical way, to investigate, detect and control pathologies related to the work activity in the plastics industry
- ♦ Train the student, in a practical way, to investigate, detect and control pathologies related to work activity in the wood industry
- ♦ Train the student, in a practical way, to investigate, detect and control pathologies related to health activities

- ♦ Train the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the chemical industry
- ♦ Train the student, in a practical way, to investigate, detect and control pathologies related to mental Workload, such as work stress, mobbing and burnout syndrome, regardless of the work environment in which they occur
- ♦ Train the student, in a practical way, to investigate, detect and control pathologies related to the sick building syndrome
- ♦ Train the student, in a practical way, to investigate, detect and control Teratogenicity and Infertility problems related to the work activity

#### **Module 9. Research in Occupational Medicine**

- ♦ Update knowledge on epidemiology and its application in the work environment
- ♦ Conduct epidemiological studies with the highest quality
- ♦ Promote research studies related to occupational health of a sufficient level to be disseminated



*Train yourself for success with the help of this Professional Master's Degree with which you will learn to develop yourself in the field of Occupational Health and Safety"*



# 03 Skills

After passing the assessments of the Professional Master's Degree in Occupational Medicine and Health, the physician will have acquired the professional skills necessary for a quality and up-to-date praxis based on the latest scientific evidence.



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*With this program you will be able to master the most common diagnostic techniques and procedures for Occupational Health and Safety tasks"*



## General Skills

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- Detect, analyze and control all those work or non-work situations that may influence the health, physical, psychological and social wellbeing of workers
- Obtain the necessary tools to perform in the field of occupational health with absolute preventive and assistance quality

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*Become a professional in the field of Occupational Health by increasing your knowledge in this field”*





## Specific Skills

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- ◆ Detect risk situations that a worker may face during the working day
- ◆ Know and interpret the specific regulations that may apply in the field of Occupational Medicine
- ◆ Carry out actions and activities that promote good habits in the area of Occupational Health
- ◆ Conduct prevention audits to promote the health of workers in their workplaces
- ◆ Carry out occupational risk prevention actions, according to the possible risks detected and focusing on the means against the COVID-19
- ◆ Detect, evaluate and control possible occupational hazards
- ◆ Propose ergonomic improvements in positions that may cause physical harm to the employee
- ◆ Diagnose and treat possible pathologies derived from work
- ◆ Detect and control possible pathologies related to new technologies
- ◆ Continue with their research facet taking into account the new knowledge acquired through this training



04

# Course Management

The program's teaching staff includes leading experts in Occupational Medicine and Health, who bring to this training the experience of their years in the profession. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.





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*The leading professionals in the field have come together to offer you the most comprehensive knowledge in this field, so that you can develop with total guarantees of success"*

## Management



### **Dr. Ditolvi Vera, Nilo Giancarlo**

- ◆ Occupational physician, expert in toxicology, and technician in the area of ergonomics in the Department of Prevention PSA Zaragoza
- ◆ He performs tasks of health surveillance, occupational epidemiology, technical support in industrial hygiene, toxicology, psychosociology and ergonomics in various external prevention services
- ◆ Degree in Medicine and General Surgery
- ◆ Specialist in Occupational Medicine via MIR
- ◆ Master's Degree in Occupational Health and Safety (Pompeu Fabra University)
- ◆ Master's Degree in Valuation of Bodily Injury and Medical Expertise (University of Barcelona)
- ◆ Expert in Occupational Toxicology (University of Barcelona)



**Dr. Bascuas Hernández, Javier**

- ◆ Opel-PSA Medical Service in Zaragoza. Occupational physician and coordinator of the Ergonomics area in this factory
- ◆ Associate Professor of the Physiotherapy Degree and Nursing Degree at San Jorge University
- ◆ Director of the Official Master's Degree in Health Sciences Research at this university
- ◆ Degree in Medicine and Surgery from the University of Zaragoza
- ◆ Doctor of Medicine and Surgery from the University of Zaragoza
- ◆ Specialist in Occupational Medicine (University of Barcelona)
- ◆ Specialist in Ergonomics and Applied Psychosociology
- ◆ He has been part of several consolidated research groups and currently belongs to the research group recognized by the Government of Aragon INDIVO (Research on new targets in autoimmunity and oncological surveillance)
- ◆ He has supervised three doctoral theses
- ◆ Received the President's Council Honor Award for his work in the field of ergonomics

## Professors

### Dr. Girao, Italo

- ♦ Medical specialist in Allergology and Clinical Immunology. Araba University Hospital. Vitoria/Gasteiz
- ♦ Medical Specialist in Occupational Medicine via MIR. Ministry of Education, Culture and Sports
- ♦ Medical Specialist in Allergology via MIR. Ministry of Education, Culture and Sports
- ♦ University Studies in Medicine. Academic Professional School of Medicine, National University "San Luis Gonzaga" of Ica - Peru
- ♦ Homologation of the degree of Medical Surgeon to the official Spanish university degree of Graduate in Medicine. Ministry of Education and Science. Spain
- ♦ Postgraduate degree in Public Health Management. San Luis Gonzaga National University. Peru

### Ms. Jiménez Sánchez, Mónica

- ♦ Mutua Fremap. Occupational and assistance nurse
- ♦ Prevention Services Auditor and Auditor in OSHAS Standards
- ♦ Graduate in Nursing
- ♦ Nurse Specialist in Occupational Nursing
- ♦ Master's Degree in Occupational Risk Prevention
- ♦ Legal and Forensic Nurse Practitioner Expert
- ♦ Senior technician in radiological installations

### Ms. Callejas González, Amelia

- ♦ She is a member of the Fremap Mutual working group on social emergencies
- ♦ Social Worker at Mutua Fremap
- ♦ Diploma in Social Work
- ♦ Expert in Systemic Intervention and Drug Dependency Intervention

### Ms. Serna, María Carmen

- ♦ Fraterprevención/Quirón Prevención. Occupational Nurse
- ♦ Nurse Specialist in Occupational Nursing
- ♦ Nursing (DUE) by Health Sciences University in León
- ♦ Master's Degree in Occupational Health with specialties in Safety, Hygiene, Ergonomics and Psychosocial by the University of the Balearic Islands
- ♦ University Expert in Nursing Services Management for UNED

### Ms. Escudero Tapia, Carolina

- ♦ Prevention Technician at the PSA plant in Zaragoza, Spain
- ♦ Degree in Chemical Engineering
- ♦ Senior Technician in Occupational Risk Prevention
- ♦ Master's Degree in Occupational Risk Prevention
- ♦ Quality, Environment and Prevention Expert



**Dr. Álvarez Zárate, José Manuel**

- ◆ Occupational Risk Prevention Technician at the Miguel Servet University Hospital in Zaragoza
- ◆ Auditor of occupational risk prevention systems and Occupational Health and Safety management systems
- ◆ Degree in Electronic Engineering
- ◆ Degree in Labor Engineering
- ◆ Dr. in Engineering from the University of Zaragoza
- ◆ Quality and Production Systems Manager
- ◆ He has worked as a consulting engineer for REFA, MAPFRE and as director of the Ergonomics Institute INERMAP
- ◆ As a researcher he has participated in different projects, such as the MOVE-Human System or the Linze system, and is currently a member of the ID Ergo group at the University of Zaragoza

**Ms. Abril Lope-Garnica, Marta**

- ◆ Labor Relations Advisor at GENERAL MOTORS ESPAÑA
- ◆ Labor Relations Advisor for GROUPE PSA (Opel Spain)
- ◆ Labor Lawyer - LACASA ABOGADOS, PALACIOS & PARTNERS
- ◆ Law Degree
- ◆ Master's Degree in European Union, Royal Institute of European Studies (RIEE) "cum laude"
- ◆ Post-Graduate Degree in Financial Management, CAI-Barcelona School of Management (UPF)



05

# Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable about the implications of medical training, aware of the relevance of the current importance of the preparation and committed to quality teaching through new educational technologies.





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*A comprehensive teaching program,  
structured in well-developed teaching units,  
oriented towards efficient and swift learning”*

## Module 1. Introduction to Occupational Health and Occupational Medicine

- 1.1. History of Occupational Medicine
- 1.2. Concept of Health, Occupational Health and Public Health
- 1.3. Determinants of Occupational Health
  - 1.3.1. Biological Determinants
  - 1.3.2. Lifestyle Determinants
  - 1.3.3. Environmental Determinants
  - 1.3.4. Identification of Health Determinants
- 1.4. Causality in Occupational Medicine
  - 1.4.1. Multicausality
  - 1.4.2. Bradford Hill Criteria
- 1.5. Study of Working Conditions
  - 1.5.1. Safety-Related Risks
  - 1.5.2. Industrial Hygiene-Related Risks
  - 1.5.3. Ergonomics-Related Risks
  - 1.5.4. Work Organization-Related Risks
  - 1.5.5. Occupational Health Protection
- 1.6. Demographics and Occupational Health
  - 1.6.1. Demographic Changes
  - 1.6.2. Cultural Aspects in Labor Demographics
  - 1.6.3. Aging of the Working Population
- 1.7. Occupational Health Organization
- 1.8. International Organizations related to Occupational Health
  - 1.8.1. WHO
  - 1.8.2. ILO
  - 1.8.3. European Agency for Safety and Health at Work

## Module 2. Health Promotion and Ethics in the Workplace

- 2.1. Occupational Health Education and Promotion
- 2.2. Healthy Company
- 2.3. Intervention Programs Design and Planning of Interventions
- 2.4. Vaccines in Occupational and Population Settings
- 2.5. Alcohol, Tobacco, Drugs and Gambling Addictions
- 2.6. Promotion of Healthy Habits: Exercise, Nutrition, Education, etc.
- 2.7. The Medical Act in Occupational Medicine
  - 2.7.1. Physician-Patient Relationship
  - 2.7.2. Ethics in Occupational Medicine
  - 2.7.3. Information on Occupational Medicine
  - 2.7.4. Clinical Documentation: Informed Consent
  - 2.7.5. Health Care Provider's Responsibility
- 2.8. Data Confidentiality in the Field of Occupational Health Care

## Module 3. Quality of Occupational Medicine

- 3.1. Quality of the Occupational Risk Prevention Service
- 3.2. Process Management
- 3.3. Quality of Service
- 3.4. Quality Certification: ISO 9000, ISO 9001
- 3.5. Audits
- 3.6. Types of Audits
- 3.7. Methodology
- 3.8. Phases of the Audit
- 3.9. Health Information



**Module 4.** Specific Assessment of the Worker in his Work Environment

- 4.1. General Evaluation of the Worker
  - 4.1.1. Healthy Worker Concept
  - 4.1.2. Bodily Injury in the Workplace
  - 4.1.3. After-Effects
  - 4.1.4. Scales
    - 4.1.4.1. Schedule of Non-Disabling Permanent Injuries
    - 4.1.4.2. Scale Structure
  - 4.1.5. Non-Eligible Damages
- 4.2. Profesiogram
- 4.3. Particularly Sensitive Worker
- 4.4. Assessment of Disability
- 4.5. Specific Assessment of the Worker I
  - 4.5.1. Individual Health Surveillance
  - 4.5.2. Collective Health Surveillance
  - 4.5.3. Post Occupational Health Surveillance
- 4.6. Worker Specific Assessment II
  - 4.6.1. Initial Medical Examinations
  - 4.6.2. Periodic Medical Check-Ups
  - 4.6.3. Previous Medical Examinations
  - 4.6.4. Compulsory Medical Examinations
  - 4.6.5. Assessment of Fitness for Work
  - 4.6.6. Degrees of Aptitude
- 4.7. Worker Specific Assessment III
  - 4.7.1. Health Surveillance: Hospitality Sector
  - 4.7.2. Health Surveillance: Health Sector
  - 4.7.3. Health Surveillance: Agricultural Sector



- 4.8. Worker Specific Assessment IV
  - 4.8.1. Specific Surveillance Protocols: Manual Handling of Loads, Forced Postures, Repetitive Movements, Pressure Neuropathies, Data Display Screens, etc.
  - 4.8.2. Specific Surveillance Protocols: Asbestos, Silicosis and other Pneumoconiosis, Extrinsic Allergic Alveolitis, Occupational Asthma
  - 4.8.3. Specific Surveillance Protocols: Noise, Ionizing Radiation, Lead, Pesticides, Dermatitis
- 4.9. Specific Assessment of the Worker V
  - 4.9.1. Specific Monitoring Protocols: Inhalation Anesthetic Agents, Cytostatics, etc.
  - 4.9.2. Specific Surveillance Protocols: Adenocarcinoma, Vinyl Chloride Monomer, Ethylene Oxide
  - 4.9.3. Specific Surveillance Protocols: Biological Agents, COVID 19
- 4.10. Occupational Medical Report

**Module 5. Risks in the work activity: regulations, factors involved, detection and control**

- 5.1. Risk of Fire and Explosion
  - 5.1.1. Fire and its Causes
  - 5.1.2. Factor Analysis
  - 5.1.3. Products Generated
  - 5.1.4. Detection Systems
  - 5.1.5. Control and Extinction
  - 5.1.6. Evacuation and Protection
- 5.2. Electrical Hazard
  - 5.2.1. Electricity Parameters
  - 5.2.2. Causes of the Electrical Accident
  - 5.2.3. Risk factors
  - 5.2.4. Biological Effects
  - 5.2.5. Safety Against Electrical Hazards
  - 5.2.6. Protection

- 5.3. Mechanical Risk
  - 5.3.1. Tools and Machines
  - 5.3.2. Risks due to Tools and Machines
  - 5.3.3. Safety in the Use of Tools and Machines
  - 5.3.4. Protection
  - 5.3.5. Welding Operations
- 5.4. Risks Associated with Noise and Vibration
  - 5.4.1. Noise Assessment Criteria
  - 5.4.2. Noise Risk Assessment
  - 5.4.3. Preventive Measures Against Noise
  - 5.4.4. Acoustic Protection
  - 5.4.5. Vibration Assessment Criteria
  - 5.4.6. Vibration Risk Assessment
  - 5.4.7. Preventive Measures Against Vibrations
- 5.5. Risks Associated with the Thermal Environment
  - 5.5.1. Thermal Environment
  - 5.5.2. Temperature Evaluation
  - 5.5.3. Preventive Measures
- 5.6. Lighting
  - 5.6.1. Assessment
  - 5.6.2. Control Measures
- 5.7. Risks Associated with Radiation
  - 5.7.1. Classification of Radiation
  - 5.7.2. Measuring Quantities
  - 5.7.3. Radiation Measurement
  - 5.7.4. Biological Effects
  - 5.7.5. Radiation Protection
- 5.8. Chemical Hazards
  - 5.8.1. Chemical Contaminants
  - 5.8.2. Causes of Industrial Poisoning
  - 5.8.3. Exposure Limits
  - 5.8.4. Environmental Sampling
  - 5.8.5. Protection



- 5.9. Biological Hazards
  - 5.9.1. Classification of Biological Agents
  - 5.9.2. Effects of Biological Agents
  - 5.9.3. Risk Assessment
  - 5.9.4. Prevention and Control
- 5.10. Industrial Waste
  - 5.10.1. Industrial Waste and Hazardous Waste
  - 5.10.2. Waste Management
  - 5.10.3. Treatment Processes
  - 5.10.4. Legislation
- 5.11. Emerging Risks

## Module 6. Ergonomics and Psychosociology

- 6.1. Introduction to Ergonomics
- 6.2. Basic Concepts in Work Physiology
- 6.3. Physical Load
- 6.4. Basic Concepts in Biomechanics
- 6.5. Ergonomic Analysis of Working Conditions
- 6.6. Ergonomic Analysis of Tasks Associated with Manual Handling of Loads
- 6.7. Work-Related Musculoskeletal Injuries
- 6.8. Intervention Methodology for the Management of Work-Related Musculoskeletal Injuries
- 6.9. Ergonomic Design of the Work System
- 6.10. Ergonomics Management
- 6.11. Applied Psychosociology in Occupational Health
- 6.12. Ergonomics of Environmental Factors

## Module 7. Occupational Pathology

- 7.1. Diseases of the Respiratory System I
  - 7.1.1. Etiology, Etiopathogenesis and Classification
  - 7.1.2. Diagnosis of Respiratory Diseases
- 7.2. Diseases of the Respiratory System II
  - 7.2.1. Pneumoconiosis, Pneumonitis, Diseases Caused by Fumes, Gases, Aerosols, etc.
  - 7.2.2. Occupational Asthma, COPD, Neoplasms

- 7.3. Occupational Dermatology: Occupational Dermatitis, Cutaneous Cancer
- 7.4. Cardiac Pathology in the Workplace
- 7.5. Occupational ENT
- 7.6. Occupational Ophthalmology
- 7.7. Infections: TB, HIV, Viral Hepatitis
- 7.8. Occupational Traumatology I: Assessment of the Orthopedic Patient
- 7.9. Occupational Traumatology II: Common Pathologies of the Upper Extremity
- 7.10. Occupational Traumatology III: Common Pathologies of the Inferiority Extremity
- 7.11. Occupational Traumatology III: Common Pathologies of the Lower Extremity
- 7.12. Physiotherapy and Occupational Rehabilitation

## Module 8. Technopathies

- 8.1. Steelmaking, Metallurgy
- 8.2. Mechanical Industry
- 8.3. Plastics Industry
- 8.4. Wood Industry
- 8.5. Mining
- 8.6. Glass Industry
- 8.7. Chemical Industry
- 8.8. Sanitary Technopathies
- 8.9. Working with Data Screen
- 8.10. Job Stress, Burnout Syndrome and Mobbing
- 8.11. Sick Building Syndrome
- 8.12. Teratogenesis and Infertility

## Module 9. Research in Occupational Medicine

- 9.1. Epidemiology
- 9.2. Scientific Method
- 9.3. Variables, Risk Estimation and Causality
- 9.4. Epidemiological Studies
- 9.5. Research in Occupational Medicine
- 9.6. Types of Studies
- 9.7. Research Programs

06

# Methodology

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

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



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

## At TECH we use the Case Method

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

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



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



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

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





## Relearning Methodology

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

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

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



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

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

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

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



#### Interactive Summaries

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

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



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

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



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

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



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.





07

# Certificate

The Professional Master's Degree in Occupational Medicine and Health guarantees you, in addition to the most rigorous and updated training, access to a Professional Master's Degree Certificate issued by TECH Technological University.





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*Successfully complete this training  
and receive your university degree  
without travel or laborious paperwork”*

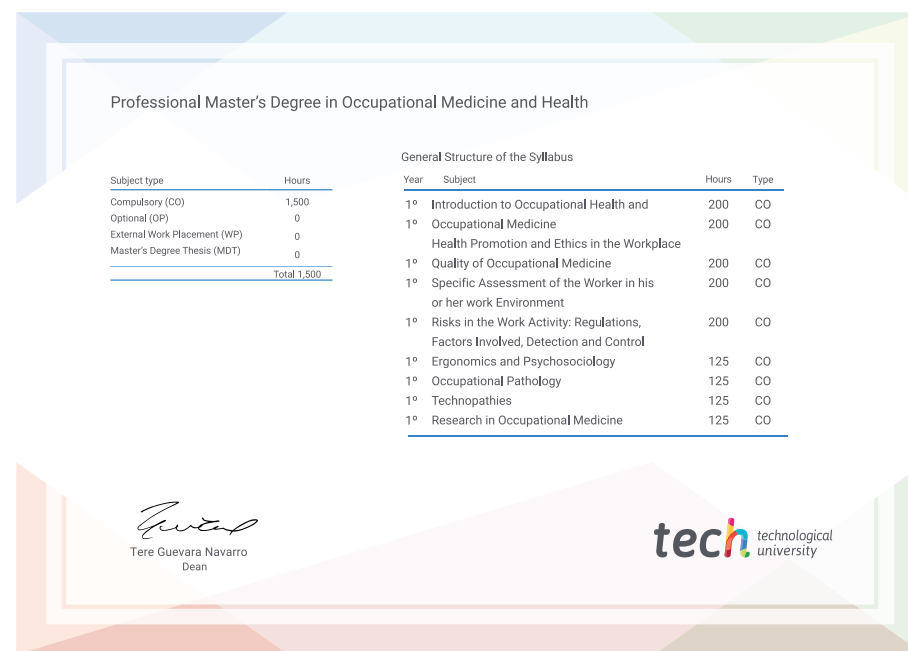
This **Professional Master's Degree in Occupational Medicine and Health** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees

Title: **Professional Master's Degree in Occupational Medicine and Health**

Official N° of hours: **1,500 h.**



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

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



## Professional Master's Degree

Occupational Medicine  
and Health

Course Modality: Online

Duration: 12 months

Certificate: TECH Technological University

Official N° of hours: 1,500 h.

# Professional Master's Degree

## Occupational Medicine and Health

