

# Postgraduate Diploma

Occupational Medicine: Ergonomics  
and Psychosociology, Occupational  
Pathology and Technopathies



## Postgraduate Diploma Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies

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

Website: [www.techtute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-occupational-medicine-ergonomics-psychosociology-occupational-pathology-technopathies](http://www.techtute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-occupational-medicine-ergonomics-psychosociology-occupational-pathology-technopathies)

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# 01

# Introduction

Specialize in Occupational Medicine thanks to this program in which special emphasis is placed on Ergonomics, Psychosociology, Occupational Pathology and Technopathologies. All of this, with current aspects that have great influence on the working life of people, so it is essential to take appropriate preventive measures to avoid possible damage.





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*New advances in occupational medicine invite us to develop this complete program in which you will find the most up-to-date specialist information on this field of work”*

Postgraduate Diploma in Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies has been designed by the top specialists in this field, to offer a comprehensive training program to those physicians who wish to broaden their knowledge in this field and apply it to their daily practice.

The program includes a range of topics from the physiological aspects of work and physical load, to the ergonomics intervention methodology, based on the correct and specific analysis of the job and work task.

The course also covers those pathologies which affect a worker while they are carrying out their daily work. In this regard, we provide up-to-date information on respiratory pathologies, cardiocirculatory pathologies, injuries and diseases of the ear and upper respiratory tract, injuries and pathologies of the eyes, injuries and diseases of the skin and infectious diseases. Given their high incidence, special interest is also given to injuries and pathologies of the locomotor system, including aspects related to physiotherapy and rehabilitation.

In addition to the theoretical content, this program contains practical cases in which the student is expected to be able to apply the knowledge to possible situations that occur in professional practice. In addition, this Postgraduate Diploma has the advantage of being developed in a 100% online format, so that students will be in charge of deciding when and where to study, distributing their study hours autonomously, so that they can combine their studying with the rest of their daily obligations.

This **Postgraduate Diploma in Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ Practical cases presented by experts in occupational medicine
- ♦ 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 the self-assessment process can be carried out 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
- ♦ Access to content from any fixed or portable device with an Internet connection



*We offer you a complete program to help you develop in the field of occupational health" Think no more and enrol with us"*



“ *This Postgraduate Diploma is the best investment you can make when choosing a refresher program to update your existing knowledge of Occupational Medicine*”

It includes, in its teaching staff, professionals belonging to the field of medicine, who bring to this program the experience of their work, in addition to recognized specialists from prestigious reference societies and 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 experience designed to prepare 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 throughout the program. To do so, the specialist will be assisted by an innovative interactive video system created by renowned and experienced experts in Occupational Medicine.

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

*Our 100% online training and our original educational methodology allow you to combine your studies with your other daily commitments.*



# 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”*



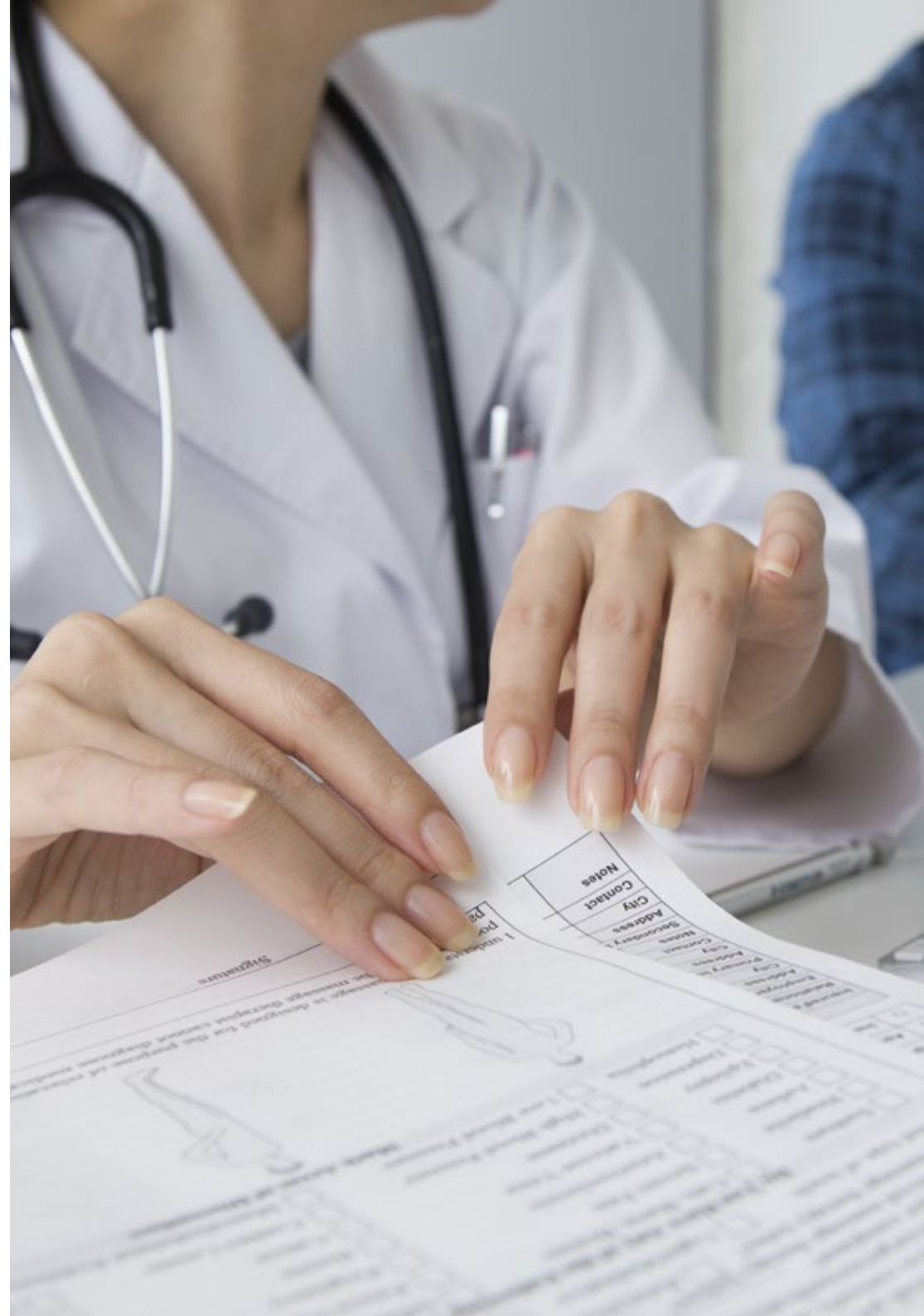
## General objectives

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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 the 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



*Become successful with this Postgraduate Diploma which will help you develop in the field of occupational health and workplace safety”*





## Specific objectives

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### Module 1. 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 2. 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 3. Technopathies

- Prepare the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the steel and metallurgy industry
- Prepare the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the mechanical industry
- Prepare the student, in a practical way, to investigate, detect and control pathologies related to the work activity in the plastics industry
- Prepare the student, in a practical way, to investigate, detect and control pathologies related to work activity in the wood industry
- Prepare the student, in a practical way, to investigate, detect and control pathologies related to health activities
- Prepare the student, in a practical way, to investigate, detect and control the pathologies related to the work activity in the chemical industry
- Prepare 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
- Prepare the student, in a practical way, to investigate, detect and control pathologies related to the sick building syndrome
- Prepare the student, in a practical way, to investigate, detect and control Teratogenicity and Infertility problems related to the work activity



03

# Course Management

The program's teaching staff includes leading experts in Occupational Medicine, who bring years of their own work experience to this programme. 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. 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



### **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)

## **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

# 04

## Structure and Content

The structure of the syllabus has been designed by a team of professionals with knowledge of the implications of medical preparation, who are aware of the relevance of up-to-date specialization, and are committed to quality teaching using 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. Ergonomics and Psychosociology

- 1.1. Introduction to Ergonomics
- 1.2. Basic Concepts in Work Physiology
- 1.3. Physical Load
- 1.4. Basic Concepts in Biomechanics
- 1.5. Ergonomic Analysis of Working Conditions
- 1.6. Ergonomic Analysis of Tasks Associated with Manual Handling of Loads
- 1.7. Work-Related Musculoskeletal Injuries
- 1.8. Intervention Methodology for the Management of Work-Related Musculoskeletal Injuries
- 1.9. Ergonomic Design of the Work System
- 1.10. Ergonomics Management
- 1.11. Applied Psychosociology in Occupational Health
- 1.12. Ergonomics of Environmental Factors

## Module 2. Occupational Pathology

- 2.1. Diseases of the Respiratory System I
  - 2.1.1. Etiology, Etiopathogenesis and Classification
  - 2.1.2. Diagnosis of Respiratory Diseases
- 2.2. Diseases of the Respiratory System II
  - 2.2.1. Pneumoconiosis, Pneumonitis, Diseases Caused by Fumes, Gases, Aerosols, etc.
  - 2.2.2. Occupational Asthma, COPD, Neoplasms
- 2.3. Occupational Dermatology: Occupational Dermatitis, Cutaneous Cancer
- 2.4. Cardiac Pathology in the Workplace
- 2.5. Occupational ENT
- 2.6. Occupational Ophthalmology
- 2.7. Infections: TB, HIV, Viral Hepatitis
- 2.8. Occupational Traumatology I: Assessment of the Orthopedic Patient
- 2.9. Occupational Traumatology II: Common Pathologies of the Upper Extremity
- 2.10. Occupational Traumatology III: Common Pathologies of the Inferiority Extremity
- 2.11. Occupational Traumatology III: Common Pathologies of the Lower Extremity
- 2.12. Physiotherapy and Occupational Rehabilitation







### Module 3. Technopathies

- 3.1. Steelmaking, Metallurgy
- 3.2. Mechanical Industry
- 3.3. Plastics Industry
- 3.4. Wood Industry
- 3.5. Mining
- 3.6. Glass Industry
- 3.7. Chemical Industry
- 3.8. Sanitary Technopathies
- 3.9. Working with Data Screen
- 3.10. Job Stress, Burnout Syndrome and Mobbing
- 3.11. Sick Building Syndrome
- 3.12. Teratogenesis and Infertility

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*A unique, key, and decisive program to boost your professional development”*

# 05 Methodology

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

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



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



## At TECH we use the Case Method

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

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



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

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

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

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





## Relearning Methodology

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

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

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



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

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

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

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

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



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



#### Study Material

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

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



#### Surgical Techniques and Procedures on Video

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



#### Interactive Summaries

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

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



#### Additional Reading

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





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

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



#### Testing & Retesting

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



#### Classes

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



#### Quick Action Guides

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





# 06 Certificate

This Postgraduate Diploma in Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.





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

This **Postgraduate Diploma in Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Occupational Medicine: Ergonomics and Psychosociology, Occupational Pathology and Technopathies**

Official N° of hours: **450 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  
development language  
virtual classroom



## Postgraduate Diploma

Occupational Medicine:  
Ergonomics and  
Psychosociology,  
Occupational Pathology  
and Technopathies

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
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# Postgraduate Diploma

Occupational medicine: Ergonomics  
and Psychosociology, Occupational  
Pathology and Technopathies

