## Postgraduate Diploma Respiratory Disorders During Sleep





Postgraduate Diploma Respiratory Disorders During Sleep

Course Modality: Online Duration: 6 months Certificate: TECH Technological University 18 ECTS Credits Teaching Hours: 450 hours Acceso web: www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-respiratory-disorders-sleep

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Certificate

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## 01 Introduction

Sleep disordered breathing (SRD) is a group of disorders ranging from snoring to sleep apnea-hypopnea syndrome (SAHS). SAHS has a high morbidity and mortality rate, as well as an increasing prevalence, and is clearly underdiagnosed in the general population. Currently, the therapeutic options go much further, both within and outside CPAP.

All of this implies for all sleep medicine professionals a need for continuous updating on the latest developments in this field.



The new scenarios in Sleep Medicine lead us to implement up to date programs that meet the real needs of experienced professionals, so that they can incorporate current advances into their daily practice"

## tech 06 | Introduction

There is an increasing multidisciplinary interest in Sleep Medicine, a rapidly growing discipline. Whether approached from a global point of view or from "partial specialisation" depending on the original field of medicine or specific area of interest, it is always vital to have rigorous and up-to-date generic knowledge in all areas. This Postgraduate Diploma more than fulfills this objective from an eminently practical point of view. Its approach sets it apart from many other courses on this very transverse discipline, which are often criticised for being too "descriptive" and "theoretical", and therefore not entirely useful in resolving many situations that arise in clinical management.

With the clear objective of combining scientific evidence and practical utility, this Postgraduate Diploma in Respiratory Disorders During Sleep has a broad, up to date and unbeatable program prepared by a varied team of professional experts (physicians, psychologists, biologists, engineers...), who bring their proven experience in the form of explanations and practical examples, entertaining but clarifying, and abundant graphic and audiovisual support, absolutely essential in the teaching of this thriving discipline.

In addition, this Postgraduate Diploma 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 obligations.

This **Postgraduate Diploma in Respiratory Disorders During Sleep** contains the most complete and up to date scientific program on the market. The most important features of the specialization are:

- The development of practical cases presented by experts in Sleep Medicine.
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- Advance in safety and Sleep Medicine.
- Practical exercises where the self-assessment process can be carried out to improve learning.
- Emphasis on innovative methodologies in Sleep Medicine.
- 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 you a complete Postgraduate Diploma for you to develop in the field of Respiratory Disorders During Sleep. Think no more and enrol with us"

### Introduction | 07 tech

This Postgraduate Diploma is the best investment you can make in selecting a refresher program to update your knowledge in Respiratory Disorders During Sleep"

The teaching staff includes medical professionals who bring their experience to this training 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 an immersive training experience designed to train in real situations.

This program is designed around Problem Based Learning, where the medical professional must try to solve the different professional practice situations that arise during the course. To do so, the specialist will be assisted by an innovative interactive video system created by renowned and experienced experts in Sleep Medicine.

We offer you an interactive video system that will make it easier for you to study this Postgraduate Diploma.

Our 100% online specialization and our innovative educational methodology will allow you to combine your studies with the rest of your daily obligations.

# 02 **Objectives**

The main objective of the programme is the development of theoretical and practical learning, so that the doctor is able to master the latest techniques in the field in a practical and rigorous manner.

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

## tech 10 | Objectives



#### **General Objective**

• To master and/or update the necessary skills and knowledge for adequate practice in the field of Sleep Medicine at a global level, from the clinical and instrumental points of view.

Train yourself for success with the help of this Postgraduate Diploma with which you will learn to develop yourself in the field of Respiratory Disorders During Sleep"



### Specific Objectives

- Gain a deep understanding of which biological parameters are of interest in the different sleep recordings, how they can be recorded and how the sensors that monitor them work.
- From the whole range of possible tests, you should acquire and master the skills to choose the most appropriate sleep test to be performed.
- Gain the skills and understanding of the indications, recording, analysis and interpretation of all kinds of simplified systems in the diagnosis of sleep disorders.
- Apply knowledge and skills on the indications, recording and practical problem solving during the Polysomnography (PSG) overnight sleep test, as a gold-standard sleep study technique. Include the acquisition of specific skills and training to perform analysis and interpretation of the sleep structure and all types of recorded events, as well as training to understand and evaluate external log reports.
- Specialise in the current indications for PSG and learn when to extend or complement this test with a wide range of complementary elements.
- Master the skills to implement and interpret additional instrumental tests to support the diagnosis in cases of daytime hypersomnolence or restless leg syndrome.
- Gain a deep understanding of new ways of dealing with sleep disorders, through monitoring with sensors or with alternative systems different to the classic ones. Some of them through wireless systems, pulse transit sensors, or the use of microwave sensors aimed at reducing the complexity of existing tests. Others, such as circadian monitoring with chronosensors, aim to record key parameters for the diagnosis of sleep disorders that are not covered by classical tests.
- Emphasise the importance of image and sound recording in sleep studies.
- Define theoretical knowledge of how the bioelectrical signal can be analyzed with software integrated in the devices, in order to be able to program the different diagnostic devices and to use the tools that each one of them provides us with.

## Objectives | 11 tech

- Specialise in how a sleep unit is organised at different levels of care. To this end, the student will learn the different cycles for prevalent or specific sleep pathologies, which optimise resources and integrate the entire care process.
- Gain an in-depth knowledge of the clinical, scientific and technical aspects of sleep-related breathing disorders, in particular SAHS.
- Update the student's clinical skills in TRS in order to encourage them in their daily work.
- Acquire skills to identify other sleep-disordered breathing disorders beyond SAHS.
- Develop and update competencies in the individualized clinical management of the patient with SAHS, primarily in the field of the different options of non-invasive ventilation and, beyond it, in the novelties in positional treatment and incipient findings and evidences in the pharmacological field.
- Know in depth the characteristics of normal sleep in children and adolescents and identify the physiological changes that occur (in sleep) as the process of brain maturation is completed until adulthood.
- Develop anatomical-functional knowledge of the upper airways and their exploration methods that are very useful from the point of view of surgical and dental management guidance of factors influencing upper airway obstruction. Special attention is given, but not limited to, the indications and methodology of modern somnoscopy technology (DISE).
- Specialize in the different surgical techniques, including multilevel techniques, their precise indications and their usefulness in different situations, alone or in combination with other techniques,
- Apply skills in the effectiveness, indications and mechanisms of action of modern dental devices and techniques used either alone, as an alternative, or in combination with other therapeutic techniques.

- Specialize in the different myofunctional techniques for rehabilitation of muscles involved in airway obstruction, their indications and how and to what extent they can help in the prevention and resolution of problems.
- Knowing how to integrate all the techniques discussed at the decision-making level, in order to properly protocolize the therapeutic line to be followed in each patient, maintaining possible alternative or rescue solutions according to the particular evolution.

## 03 Course Management

The program includes in its teaching staff leading experts in Sleep Medicine, who bring to this specialization 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.

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"

## tech 14 | Course Management

#### Director



#### Dr. Larrosa Gonzalo, Óscar

- Specialist in Clinical Neurophysiology via MIR (Hospital Clínico Universitario San Carlos, Madrid, Spain). Expert in Sleep Medicine (CEAMS accredited, first national exam, 2013)
- Coordinator and founder of the Sleep Medicine Unit of MIPsalud, Madrid. Specialist and clinical consultant in sleep medicine at the Center of Neurological Diseases in Madrid and at the Multidisciplinary Unit for Sleep Disorders in San Rafael Hospital in Madrid, Spain.
- Member of the Spanish Sleep Society (SES), founding member and former coordinator of its working group on Sleep Behaviour and Behavioural Disorders.
- Member of the Spanish Society of the Neurophysiology Clinic (SENFC), founding member and former coordinator of its working group on sleep disorders.
- Honorary Member, medical advisor and recommended specialist of the Spanish Restless Legs Syndrome Association (AESPI).
- Director of the Online Course "RESTLESS LEGS SYNDROME (WILLIS-EKBOM DISEASE)", (AESPI/Information without borders) for healthcare professionals, Jul. 2016 Jul. 2017

#### Professors

#### Dr. García de Gurtubay Gálligo, Iñaki

- Specialist in Clinical Neurophysiology. Doctorate in Medicine. Expert in Sleep Medicine (CEAMS accreditation, 2013)
- Head of the Clinical Neurophysiology Service and Head of the multidisciplinary sleep pathology unit of CHN-SNS, Pamplona, Spain.
- Lecturer and tutor of the practical side of the TECH Master's Degree in Biomedical Engineering of the ETS of Industrial and Telecommunication Engineering of the Public University of Navarra (UPNA).
- Member of the Spanish Society of the Neurophysiology Clinic (SENFC), founding member and former coordinator of its working group on sleep disorders.

- Medical Advisor to Walden Medical Neurodigital Therapies
- Member of the Spanish Sleep Society (SES), founding member and former coordinator of its working group on movement and behavioural disorders during sleep
- Project Consultant as Biomedical Technology Expert at the Instituto de Salud Carlos III
- Member of the Medical Technologies Assessment working group of the International Federation of Clinical Neurophysiology (IFCN).
- Member of the Neurophysiology of brain rhythms, epilepsy and sleep research group of the Navarra Health Research Institute-IdISNA.
- Member of the Sociotechnology for Innovation in Health Group

### Course Management | 15 tech

#### Dr. Díaz de Terán López, Teresa

- Specialist in Internal Medicine. Specialist in Pulmonology
- Assistant Specialist Physician in the Pulmonology Department and in the Multidisciplinary Unit of Sleep Disorders and Ventilation of the Marqués de Valdecilla University Hospital, Santander, Spain.
- Member of the following scientific societies:
- Spanish Society of Pulmonology and Thoracic Surgery (SEPAR)
- Castilian-Leonese and Cantabrian Society of Respiratory Pathology (SOCALPAR)
- Spanish Society of Sleep (SES).
- Principal investigator in 1 research project and associate investigator in 5 multidisciplinary research projects in Sleep Medicine.
- Training placement at Lane Fox Unit, St Thomas' Hospital, London (2017, 3 months)

#### Dr. Jiménez Ferreres, Luis

- Specialist in otorhinolaryngology and head and neck surgery, Autonomous University of Madrid. Doctorate in Medicine. (Universdad Complutense de Madrid)
- Assistant Doctor at the Department of Otorhinolaryngology and Cervico-Facial Surgery, Hospital San Rafael, Madrid.
- Director of the Multidisciplinary Sleep Unit, Hospital San Rafael, Madrid.
- Master in "Senior Healthcare Management", Arthur Andersen (Madrid).
- University TECH Master's Degree in "Sleep: physiology and medicine" by the UCAM
- Member of the following scientific societies:
- Spanish society of otorhinolaryngology and head and neck surgery (SEORL).
- Spanish Society of Sleep (SES)..
- American Association of Sleep Medicine (AASM).
- Otorhinolaryngology Society of Madrid.
- Otorhinolaryngology Society of Castilla la Mancha.
- European society of Paedriatic Otorhinolaryngology.
- Interamerican Association of Pediatric Otolaryngology.(IAPO).

#### Dr. Sans Capdevila, Óscar

- Specialist in Clinical Neurophysiology.
- Expert in Sleep Medicine (CEAMS accredited, 2013), European Somnologist (ESRS accredited, 2014)
- Coordinator of the Sleep Unit at the Sant Joan de Beu Children's Hospital, Barcelon, Spain.
- Lecturer in the TECH Master's Degree in Paediatric Neurology (UB).
- Lecturer in the TECH Master's Degree in Psychopathology (UAB).
- Member of the following scientific societies:
- Spanish Society of Sleep (SES), member of its board of directors (treasurer)
- American Academy of Sleep Medicine (AASM)
- International Paediatric Sleep Association (IPSA)
- European Sleep Research Society (ESRS)
- Member of local committee at the 2013 World Congress of Sleep Medicine,, Valencia , Spain
- Reviewer of publications in the following medical journals:
- Neurology Journal (Spain)
- Paediatrics (Sleep)

## 04 Structure and Content

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

Structure and Content | 17 tech

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

## tech 18 | Structure and Content

#### Module 1. Technical and Organizational Aspects of the Diagnosis Process

- 1.1 Measurable Biological Parameters and Detection Sensors
  - 1.1.1. Types of Parameters and their Recording Methods
  - 1.1.2. Selection of the Parameters According to the Diagnostic Suspicion.
  - 1.1.3. General Protocols and Selection of the Tests to be Performed.
- 1.2 Simplified Registration Systems.
  - 1.2.1. Relevance of Simplified Systems.
  - 1.2.2. Pulse Oximetry, Actigraphy and Activity Wristbands.
  - 1.2.3. Abbreviated Systems and Respiratory Polygraphy.
- 1.3 Polysomnography (PSG): The Apparatus and Signal Acquisition.
- 1.4 Polysomnography (PSG): Analysis, Coding and Interpretation (I).
  - 1.4.1. Analysis and Coding of Sleep Phases in Adults. Hypnogram.
  - 1.4.2. Analysis and Coding of Sleep in Pediatric Age.
  - 1.4.3. Analysis and Coding of Cardiac Activity.
- 1.5 Polysomnography (PSG): Analysis, Coding and Interpretation (II)
  - 1.5.1. Coding of Respiratory Events and their Interpretation.
  - 1.5.2. Analysis and Coding of Motor Events.
  - 1.5.3. Analysis of Other Signals.
  - 1.5.4. Joint Interpretation and Report Generation.
- 1.6 Polysomnography (PSG): Indications and Extended PSG.
- 1.7 Other Tests in Wakefulness and Sleep.
  - 1.7.1. Evaluation of Tiredness
    - 1.7.1.1. Test of Multiple Sleep Latency Test-TLMS.
    - 1.7.1.2. Maintenance of Wakefulness Test-TMV.
  - 1.7.2. Suggested Immobilization Test (SIT) and Variants (mSIT).
- 1.8 Alternative Integrated Monitoring Systems.
  - 1.8.1. Another Approach to Sleep Disorders.
  - 1.8.2. Wireless Systems
  - 1.8.3. Systems with Pulse Transit Time (PTT).
  - 1.8.4. Microwave Motion Sensors.
  - 1.8.5. Image and Sound in the Sleep Studies.
- 1.9 Methods for Studying the Circadian System
- 1.10 Automated and Advanced Bioelectrical Signal Analysis.
  - 1.10.1. Concepts, Preparation and Analysis.
  - 1.10.2. Analysis of Each Signal or Multichannel.
  - 1.10.3. Algorithms for Cleaning, Artifact Detection, and Specific Signal Detection.
  - 1.10.4. Learning and Classification Networks, Analysis Matching and Data Mining.

- 1.11 Organization of a Sleep Unit.
  - 1.11.1. From Basic to Multidisciplinary Units. Local, Multidisciplinary and Multi-Sectoral Integration.
  - 1.11.2. The Patient as the Central Axis.
  - 1.11.3. Sleep Nursing.
  - 1.11.4. External Integration with Health Services and Support Units.
  - 1.11.5. Supply Companies and Private Activity.
  - 1.11.6. Accreditation of Centers and Individuals.
  - 1.11.7. Innovation and Resources. Integration of Programs, Networks and Servers. Home Monitoring Systems.

#### Module 2. Disordered Sleep Breathing (DSB) : Clinical Aspects in Adults

- 2.1 Respiratory Physiology and Pathophysiology During Sleep
  - 2.1.1. Introduction
  - 2.1.2. Anatomical Factors
  - 2.1.3. Functional Factors
    - 2.1.3.1. Upper Airway Reflexes (UAR). Answers
    - 2.1.3.2. Degree of Sensitivity of the Centers to Triggering Events
    - 2.1.3.3. Sensitivity of Respiratory Centers
  - 2.1.4. Assessment of Traits Involved in SAV Characteristics in SAHS
    - 2.1.4.1. Known Characteristics
    - 2.1.4.2. Critical Pressure Measurement as an Expression of SAV Collapsibility
- 2.2 Characteristics of the Most Typical TRS: Breath Sounds, SARVAS, SAHS
  - 2.2.1. Snoring Definition, Classification and Epidemiology.
  - 2.2.2. Catathrenia
  - 2.2.3. Syndrome of Increased Upper Airway Resistance Syndrome (SARVAS)
  - 2.2.4. Sleep Apnea-Hypopnea Sleep Apnea-Hypopnea Syndrome (SAHS)
    - 2.2.4.1. Definition and Concept
    - 2.2.4.2. Prevalence
    - 2.2.4.3. Risk Factors
- 2.3 Central Apneas Syndrome
- 2.4 Non-Respiratory Comorbidities of SAHS
  - 2.4.1. HTA and Cardiovascular Risk
  - 2.4.2. Other Comorbidities

### Structure and Content | 19 tech

- 2.5 Respiratory Comorbidities of SAHS
  - 2.5.1. Chronic Obstructive Pulmonary Disease (COPD)
  - 2.5.2. Asthma
  - 2.5.3. Diffuse Interstitial Lung Disease
  - 2.5.4. Pulmonary Hypertension
- 2.6 SAHS, Obesity and Metabolic Impairment: Associations and Effect of CPAP
  - 2.6.1. SAHS and Metabolic Syndrome.
  - 2.6.2. SAHS and Lipid Metabolism.
  - 2.6.3. SAHS and Glucose Metabolism.
- 2.7 Hypoventilation Syndrome Obesity
  - 2.7.1. Definition, Prevalence and Epidemiology
  - 2.7.2. Effects of Obesity on the Respiratory System
  - 2.7.3. Contribution of Airway Obstruction During Sleep to Hypercapnia
  - 2.7.4. Clinical Features, Predictive Factors and Diagnosis
  - 2.7.5. Treatment
- 2.8 Diagnosis of SAHS
  - 2.8.1. Polysomnography: "Gold Standard" Method
  - 2.8.2. Polygraphy and Simplified Diagnostic Methods. Indications and Decision Making.
  - 2.8.3. Other Complementary Methods
- 2.9 Treatment of SAHS (I)
  - 2.9.1. Global Measures
  - 2.9.2. Positive Airway Pressure. CPAP and APAP Indication
  - 2.9.3. Adaptation and Follow-Up of the Treatment. The Era of Telemonitoring
- 2.10 Treatment of SAHS (II)
  - 2.10.1. Bi-Level Pressure Treatment
  - 2.10.2. Servoventilation
  - 2.10.3. Other Therapeutic Options

#### Module 3. Sleep-Wake Disorders in the Pediatric Age Group

- 3.1 Sleep-Disordered Breathing Disorders (SRD) in Pediatrics
  - 3.1.1. Concepts and Types of Pediatric SRT
  - 3.1.2. Pathophysiology of TRS in Children.
  - 3.1.3. Consequences of Untreated TRS in Children.
  - 3.1.4. Diagnosis of TRS in Children.
  - 3.1.5. Treatment of TRS in Children.

## **Module 4.** Sleep-Disordered Breathing Disorders (SRD) : Surgery, Dentistry and Functional Rehabilitation in SAHS

- 4.1 Functional Anatomy and Exploration of the Airway from a Surgical and Dental Perspective
  - 4.1.1. Exploration of the Airway in the Otolaryngological Consultation
  - 4.1.2. Dental and Maxillofacial Examination
- 4.2 Airway Imaging Tests
  - 4.2.1. Somnoscopy (DISE) in Pediatrics and Adults
  - 4.2.2. Applied Radiology
- 4.3 Palato-Oropharyngeal Surgery and Treatments:
  - 4.3.1. Tonsillectomy, Adenoidectomy and Pharyngoplasty: Concepts and Techniques
  - 4.3.2. Lingual Frenulum Surgery
  - 4.3.3. Soft-Tissue Stiffness Augmentation Techniques
    - 4.3.3.1. Radiofrequency
    - 4.3.3.2. Sclerosants
    - 4.3.3.3. Devices
- 4.4 Hypopharyngeal Surgery
  - 4.4.1. Base of Tongue and Epiglottis Surgery
  - 4.4.2. Other Treatment Techniques with Cervical Approach
    - 4.4.2.1. Tongue and Hyoid Suspension
    - 4.4.2.2. Hypoglossal Nerve Neurostimulation
    - 4.4.2.3. Tracheotomy
- 4.5 Nasal Surgery. Optimization of CPAP Adherence.
- 4.6 Oro-Dental Sleep Medicine (I): Mandibular Advancement Devices in Adults
- 4.7 Oro-Dental Sleep Medicine (II): Expanders in Pediatrics and Adults
- 4.8 Maxillary-Mandibular Advancement and other Orthognathic Surgery Treatments
- 4.9 Myofunctional Therapy and Respiratory Reeducation in the Treatment of SHAS
- 4.10 Multilevel and Multidisciplinary Treatment. Conclusions

# 05 **Methodology**

This training provides you with a different way of learning. Our methodology is developed through a cyclical way of learning: *Re-learning*.

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



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

### tech 22 | Methodology

#### At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can 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 singularity 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:

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1 Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.

2 The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.

3 Ideas and concepts are understood more effectively, since the example situations are based on real life situations.

4 Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## tech 24 | Methodology

#### **Re-Learning Methodology**

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

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



### Methodology | 25 tech

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

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socioeconomic profile and an average age of 43.5 years.

Re-learning will allow you to learn with less effort and better performance, involving you more in your training, 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



## tech 26 | Methodology

In this program you will have access to the best educational material, prepared with you in mind:



#### **Study Material**

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

20%

15%

3%

15%

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.

### Methodology | 27 tech



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

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

20%

7%

3%

17%



#### **Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout the course, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



#### **Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

## 06 **Certificate**

Through a different and stimulating learning experience, you will be able to acquire the necessary skills to take a big step in your training. An opportunity to progress, with the support and monitoring of a modern and specialized university, which will propel you to another professional level.



Include in your specialization a Postgraduate Diploma in Respiratory Disorders During Sleep: a highly qualified added value for any medical professional"

## tech 30 | Certificate

This **Postgraduate Diploma in Respiratory Disorders during Sleep** contains the most complete and up-to-date scientific program on the market.

Once the student has passed the evaluations, he/she will receive by mail, with acknowledgement of receipt, the corresponding

Postgraduate Diploma certificate issued by TECH Technological University.

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

Title: Postgraduate Diploma in Respiratory Disorders during Sleep

ECTS: 18

Official Number of Hours: 450



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

technological university Postgraduate Diploma Respiratory Disorders during Sleep Course Modality: Online Duration: 6 months. Certificate: TECH Technological University **18 ECTS Credits** Teaching Hours: 450 hours.

## Specialist Diploma Respiratory Disorders During Sleep

