

# Postgraduate Certificate

## Physiology of Respiratory Techniques



## Postgraduate Certificate Physiology of Respiratory Techniques

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/physiology-respiratory-techniques](http://www.techtute.com/us/medicine/postgraduate-certificate/physiology-respiratory-techniques)

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# 01

# Introduction

Several studies have shown the benefits of yoga in patients with cardiorespiratory problems thanks to the breathing techniques practiced in each session. In this way, this physical activity has become an ideal alternative for patients who require exercise without putting their body to the limit. For this reason, it is essential for medical professionals to be aware of the advances in this field, as well as the action exerted on the body by the different breathing techniques. This is how this program was developed, which offers, through a 100% online teaching format, an advanced syllabus with innovative teaching material that is accessible 24 hours a day, from any digital device with an Internet connection.



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*You will achieve an effective update on the Physiology of Breathing Techniques applied to Yoga through an online pedagogical format"*

The short-term practice of yogic breathing generates important benefits for people, since it decreases oxygen consumption at rest, strengthens the respiratory muscles, thereby increasing the excursions of the diaphragm and lungs along with greater thoracic elasticity. These benefits have an impact on patients with cardiovascular problems and also on those suffering from anxiety or stress.

Given this scenario, doctors have chosen to include Yoga Therapy as a complement to more conventional treatments. Therefore, it is necessary that they are aware of the progress in this field, as well as the action that exerts on the body the different breathing techniques used. For this reason, this Postgraduate Certificate is designed to provide an update in just 6 weeks.

A program that is also distinguished by having first class professionals in the world of Yoga, which offers the graduate top quality material. Among them is a *Masterclass* taught by an instructor with a national and international trajectory that provides the most rigorous and technical information about this physical activity.

In addition, thanks to the numerous innovative teaching materials, the graduate will delve dynamically into the physiology of Pranayama, the complete yogic breathing, the kumbakha, the relationship with the bandhas or the physiology of Mudras. An academic itinerary that will not require long hours of study and memorization, since thanks to the *Relearning* method, used by TECH, the graduate will be able to focus on the most important concepts and consolidate them in a much simpler way.

An updating process that is also characterized by its flexibility and convenience. Students only need a digital device with an Internet connection to view the content hosted on the virtual platform at any time of the day. An ideal option to balance the most demanding responsibilities with a cutting-edge program.

This **Postgraduate Certificate in Physiology of Respiratory Techniques** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of practical case studies presented by Yoga experts.
- ◆ 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.
- ◆ Practical exercises where self-assessment can be used to improve learning.
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Delve into the concepts of prana, nadi and pindala frequently used in the practice of Yoga"*

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*A 6-week academic itinerary with the most rigorous information on the Physiology of regenerative Pranayamas”*

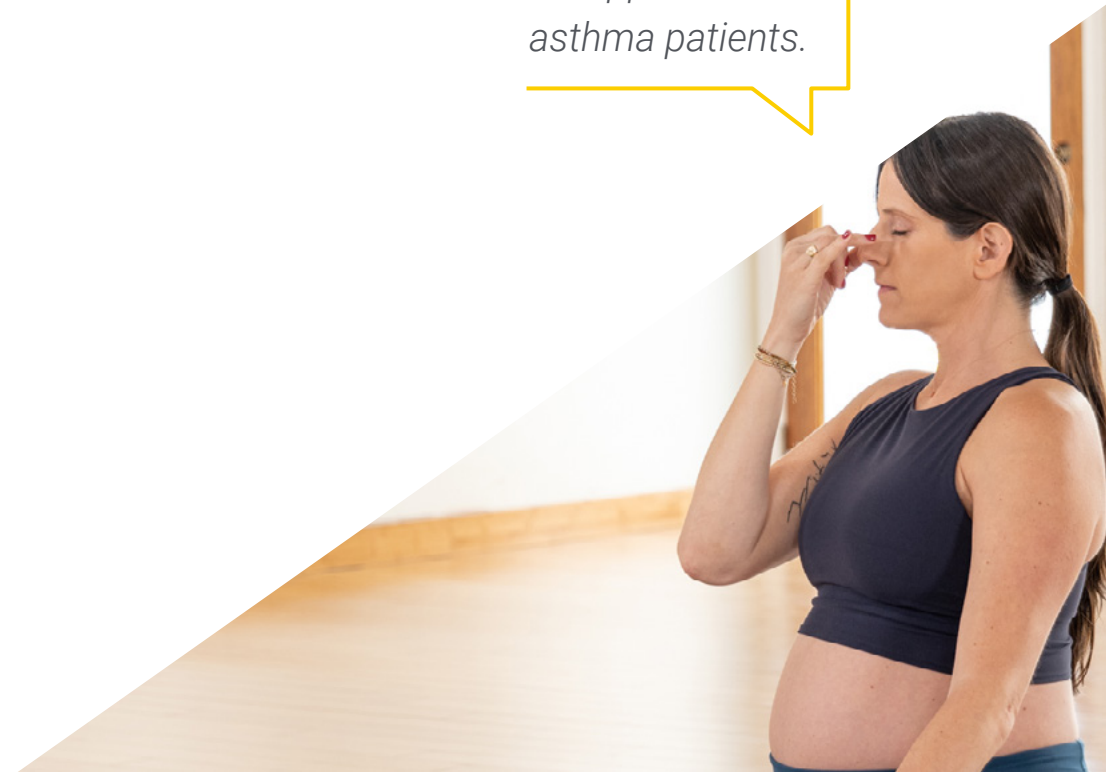
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*The TECH Relearning method favors the consolidation of concepts and reduces long hours of study.*

*It explores the different types of breathing worked on in the Yoga sessions and their application in asthma patients.*



# 02 Objectives

This Postgraduate Certificate has been designed with the aim of offering the medical professional a complete update on the Breathing Techniques used in yoga. A process of updating that will be much easier to achieve thanks to the theoretical-practical approach of this program and the clinical case studies, which will allow them to appreciate the methodologies used and their direct application in their therapeutic practice.





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*Incorporate into your clinical practice  
the latest evidence on the use of  
Breathing Techniques applied to Yoga”*



## General Objectives

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- ◆ Incorporate the knowledge and skills that are necessary for the correct development and application of Therapeutic Yoga techniques from a clinical point of view
- ◆ Create a Yoga program designed and based on scientific evidence
- ◆ Delve into the most appropriate asanas according to the characteristics of the person and the injuries they present
- ◆ Delve into studies on biomechanics and its application to the asanas of Yoga Therapy
- ◆ Describe the adaptation of Yoga asanas to the pathologies of each person
- ◆ Delve into the neurophysiological basis of existing meditative and relaxation techniques



*Delve into the different types of pranayama and their effects on patients with breathing diseases"*





## Specific Objectives

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- ◆ Describe the physiology of the respiratory system and how it relates to the practice of pranayama
- ◆ Delve into the different types of breathing and how they affect the respiratory system and the body in general
- ◆ Identify the different components of breathing, such as inspiration, expiration, and retentions, and how each affects the physiology of the body
- ◆ Delve into the concepts of the energy channels or nadis, and how they relate to the physiology of breathing and pranayama practice
- ◆ Describe the different types of pranayamas and how they affect the physiology of the body and mind
- ◆ Identify the basic concepts of mudras and how they relate to the physiology of breathing and pranayama practice
- ◆ Delve into the effects of pranayama practice on the body's physiology and how these effects can help improve health and wellness

03

# Course Management

In order to offer the graduate a first level university program, TECH has selected a teaching team that is distinguished by its high mastery and prestige in the world of Yoga. In this way, the graduate will obtain the most rigorous information from instructors with an excellent background in their sector. In addition, thanks to their closeness, students will be able to resolve any doubts they may have about the content of this program.





“Access when and where you want the Masterclass given by a prestigious professional in the world of Yoga”

## International Guest Director

As the Director of Teachers and Head of Instructor Training at the Integral Yoga Institute in New York, Dianne Galliano is positioned as one of the most important figures in the field internationally. Her academic focus has been primarily therapeutic yoga, with over 6,000 documented hours of teaching and continuing education.

In this way, her work has been to mentor, develop learning protocols and criteria, and provide continuing education to Integral Yoga Institute instructors. She balances this work with her role as a therapist and instructor in other institutions such as The 14TH Street Y, Integral Yoga Institute Wellness Spa or the Educational Alliance: Center for Balanced Living.

Her work also extends to **creating and directing yoga programs**, developing exercises and evaluating challenges that may arise. She has worked throughout her career with many different profiles of people, including older and middle-aged men and women, prenatal and postnatal individuals, young adults, and even veterans with a range of physical and mental health issues.

For each one of them she performs a careful and personalized work, having treated people with osteoporosis, in the process of recovery from heart surgery or post-breast cancer, vertigo, back pain, irritable bowel syndrome and obesity. She has several certifications, including E-RYT 500 by Yoga Alliance, Basic Life Support (BLS) by American Health Training and Certified Exercise Instructor by the Somatic Movement Center



## Ms. Galliano, Dianne

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- Director of Teachers at Integral Yoga Institute - New York, USA
- Therapeutic Yoga Instructor at The 14TH Street Y
- Yoga Therapist at Integral Yoga Institute Wellness Spa in New York City
- Therapeutic Instructor at Educational Alliance: Center for Balanced Living
- Degree in Primary School Education from the State University of New York
- Master's Degree in Yoga Therapy from the University of Maryland

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*Thanks to TECH you will be able to learn with the best professionals in the world"*

## Management



### Ms. Escalona García, Zoraida

- ◆ Vice president of the Spanish Association of Therapeutic Yoga
- ◆ Founder of the Air Core method (classes that combine TRX and Functional Training with Yoga)
- ◆ Trainer in Yoga Therapy
- ◆ Degree in Biological Sciences from the Autonomous University of Madrid
- ◆ Course in Teacher of: Ashtanga Yoga Progressive, FisiomYoga, Myofascial Yoga, Yoga and Cancer
- ◆ Course in Floor Pilates Instructor
- ◆ Course in Phytotherapy and Nutrition
- ◆ Meditation Teacher Course

## Professors

### Ms. Salvador Crespo, Inmaculada

- ◆ Coordinator of the European Yoga Institute
- ◆ Yoga and Meditation Teacher at European Yoga Institute
- ◆ Specialist in Integral Yoga and Meditation
- ◆ Specialist in Vinyasa Yoga and Power Yoga
- ◆ Specialist in Therapeutic Yoga





# 04

## Structure and Content

This university program consists of a syllabus prepared by Yoga instructors of international recognition. A syllabus that will lead the graduate to be aware of the scientific evidence on the practice of Yoga and the health benefits of the practice of breathing techniques. All this, packed in a program of 150 teaching hours and with the best pedagogical material. A unique opportunity that only TECH, the world's largest online university, can offer.





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*A complete program on  
Therapeutic Yoga with the best  
teaching material available in the  
current university academic market"*

## Module 1. Physiology of Breathing Techniques

- 1.1. Physiology of Pranayama
  - 1.1.1. Definition
  - 1.1.2. Origin
  - 1.1.3. Benefits
  - 1.1.4. Prana Concept
- 1.2. Breathing Types
  - 1.2.1. Ultrasound
  - 1.2.2. Wall
  - 1.2.3. Clavicular
  - 1.2.4. Complete Yogic Breathing
- 1.3. Purification of Pranic Energy Conduits or Nadis
  - 1.3.1. What are the Nadis?
  - 1.3.2. Sushuma
  - 1.3.3. Ida
  - 1.3.4. Pindala
- 1.4. Inspiration: Puraka
  - 1.4.1. Abdominal Inhalation
  - 1.4.2. Diaphragmatic/Costal Inspiration
  - 1.4.3. General Considerations and Contraindications
  - 1.4.4. Relationship with the Bandhas
- 1.5. Exhalation: Rechaka
  - 1.5.1. Abdominal Exhalation
  - 1.5.2. Diaphragmatic/Costal Exhalation
  - 1.5.3. General Considerations and Contraindications
  - 1.5.4. Relationship with the Bandhas
- 1.6. Retentions: Kumbakha
  - 1.6.1. Anthara Kumbhaka
  - 1.6.2. Bahya Kumbhaka
  - 1.6.3. General Considerations and Contraindications
  - 1.6.4. Relationship with the Bandhas





- 1.7. Physiology of Purifying Pranayamas
  - 1.7.1. Douti
  - 1.7.2. Anunasika
  - 1.7.3. Nadi Shodana
  - 1.7.4. Bhramari
- 1.8. Physiology of Stimulating and Refreshing Pranayamas
  - 1.8.1. Kapalabhati
  - 1.8.2. Bastrika
  - 1.8.3. Ujjayi
  - 1.8.4. Shitali
- 1.9. Physiology of Regenerative Pranayamas
  - 1.9.1. Surya Bheda
  - 1.9.2. Kumbaka
  - 1.9.3. Samavritti
  - 1.9.4. Mridanga
- 1.10. Mudras Physiology
  - 1.10.1. What Are They?
  - 1.10.2. Benefits and When to Incorporate them
  - 1.10.3. Meaning of Each Finger
  - 1.10.4. Main Mudras that Are Used in a Practice

“ A unique opportunity for an update on Yoga, breathing techniques and their benefits in patients with cardiovascular problems”

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.





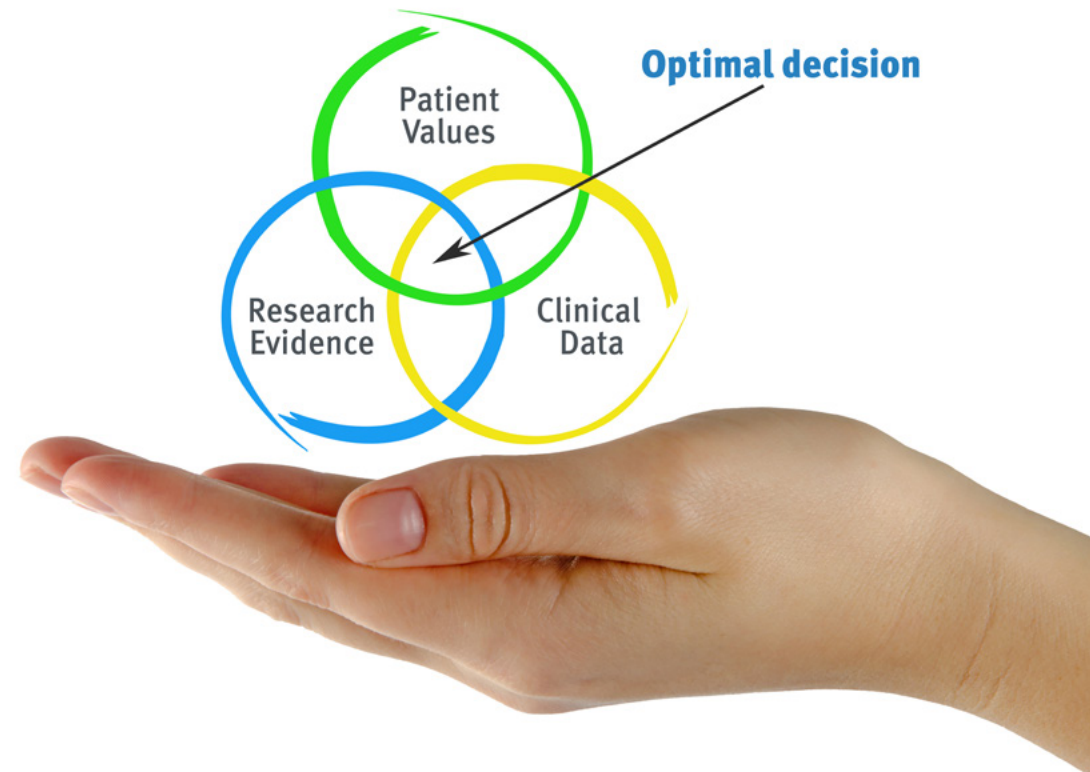
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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 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.



# 06 Certificate

The Postgraduate Certificate in Physiology of Respiratory Techniques guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in Physiology of Respiratory Techniques** contains the most complete and up-to-date scientific on the market.

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

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

Title: **Postgraduate Certificate in Physiology of Respiratory Techniques**

Official N° of Hours: **150 h.**



\*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.



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community commitment  
personalized service innovation  
knowledge present  
development languages  
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