

# Postgraduate Certificate Sterile Pharmaceutical Formulation



## Postgraduate Certificate Sterile Pharmaceutical Formulation

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 9 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitude.com/us/pharmacy/postgraduate-certificate/sterile-pharmaceutical-formulation](http://www.techtitude.com/us/pharmacy/postgraduate-certificate/sterile-pharmaceutical-formulation)

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01

# Introduction

The development of industry and the discovery of new synthetic medicines has transformed the concept of medicine. We have gone from an individualized medicine for a specific patient and specific needs, to a global medicine. That is, for a specific disease, but intended for a large number of patients.



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*The Postgraduate Certificate in Sterile Pharmaceutical Formulation contains the most complete and up to date scientific program on the market"*

Industrialized medicine has been a breakthrough in current therapeutics, since many patients have found a remedy for their illnesses.

However, this industrialized drug does not cover all therapeutic needs. For various reasons, there are therapeutic gaps that only the Individualized Medicine can fill.

The Master Formulation or, nowadays, "individualized medicine" is the essence of the pharmaceutical profession. It has been the starting point of human medicine therapeutics, when patient care was individualized.

The master formula, understood as the medicine intended for an individualized patient, prepared by or under the direction of a pharmacist, to expressly comply with a detailed medical prescription of the medicinal substances it includes, requires that the professional activity be adjusted to strict and faithfully reproducible procedural guidelines. In this sense, pharmacists need to be updated and promote continuous training in the knowledge and compliance with the standards for the correct preparation and quality control of Master formulae in order to achieve the required level of quality.

The objective of this program is to train pharmacists in a discipline unique and exclusive to their profession, specializing professionals who can respond to therapeutic gaps with the formulation of an individualized drug with the quality and efficacy of an industrialized drug.

This **Postgraduate Certificate in Sterile Pharmaceutical Formulation** contains the most complete and up to date scientific program on the market. The most important features of the Postgraduate Certificate are:

- ♦ Development of clinical cases presented by experts in pharmacology. 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.
- ♦ Sterile Pharmaceutical Formulation Performance Updates
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ♦ With a special focus on evidence-based medicine and research methodologies in Sterile Pharmaceutical Formulation
- ♦ All of this will be complemented by 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



*Update your knowledge through the Postgraduate Certificate in Sterile Pharmaceutical Formulation, in a practical way and adapted to your needs"*



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*This Postgraduate Certificate may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Sterile Pharmaceutical Formulation, you will obtain a Postgraduate Certificate from TECH - Technological University"*

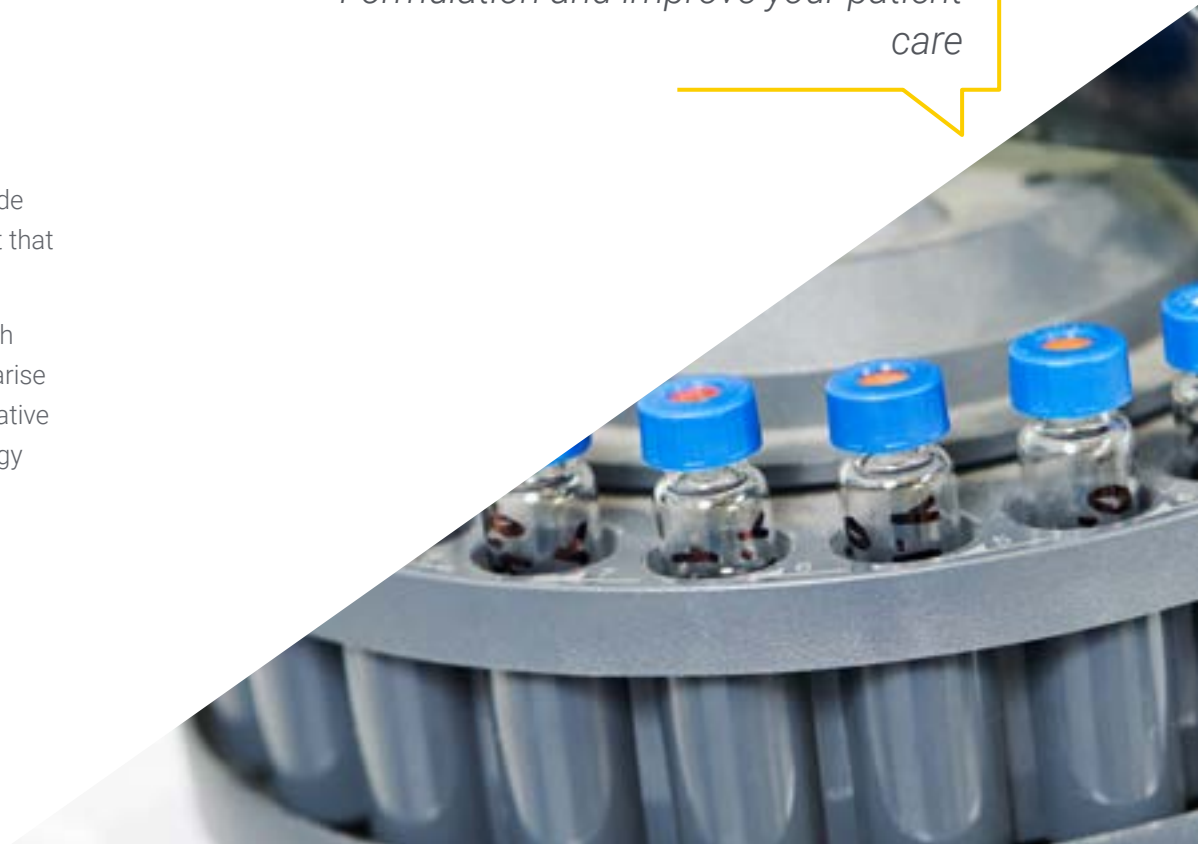
It includes in its teaching staff health professionals belonging to the field of master formulas, who pour into this program the experience of their work, in addition to recognized specialists belonging to scientific societies of reference.

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 program to train in real situations.

The design of this program is based on Problem-Based Learning, by means of which the pharmacist must try to solve the different professional practice situations that arise throughout the Postgraduate Certificate. This will be done with the help of an innovative interactive video system developed by renowned experts in the field of pharmacology with extensive teaching experience.

*The Postgraduate Certificate includes real case studies and exercises to bring the development of the University Course closer to the pharmacist's professional practice.*

*Take the opportunity to update your knowledge in Sterile Pharmaceutical Formulation and improve your patient care*



# 02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the professional can master Sterile Pharmaceutical Formulation in a practical and rigorous way.







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*This refresher program will generate a sense of security in the performance of the professional's praxis, which will help you grow personally and professionally"*



## General Objectives

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- ♦ Guarantee the correct preparation, by the pharmacist, of master formulas and office preparations according to current regulations by means of theoretical/practical complementary training to that acquired in their basic training, updating knowledge, training skills and developing attitudes.

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*Take the opportunity and take the step to get up to date on the latest developments in Sterile Pharmaceutical Formulation”*





## Specific Objectives

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- ♦ Define the concept of sterile in Master Formulation
- ♦ Explain the production of ophthalmic eye drops, as well as the tools, regulations, etc.
- ♦ Describe the production of ophthalmic ointments, as well as the tools, regulations, etc.
- ♦ Explain the elaboration of sterile formulas for parenteral routes in all its variants: intravenous, subcutaneous, intramuscular, etc.
- ♦ Describe the process of parenteral nutrition elaboration according to criteria of composition, quality, etc.
- ♦ Explain different sterilization systems and their characteristics.
- ♦ Explain how to set expiration dates for sterile dosage forms
- ♦ List the most frequent pathologies with therapeutic vacuum in ophthalmology.
- ♦ Explain the preparation of an autologous saline eye drop

03

# Course Management

This program includes in its teaching staff health professionals of recognized prestige, who belong to the field of Master formulation, and who bring to this program the experience of their work.

In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.





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*Learn from leading professionals the latest advances in Sterile Pharmaceutical Formulation ”*

## Management



### Graduate. Giner Perelló, Jose Antonio

- ♦ Community pharmacist at the Pharmacy Office of Atzeneta de Albaida (Valencia).
- ♦ Responsible for the master formulation laboratory FARMACIA PERELLÓ with Level of Sterile Pharmaceutical Forms with authorization FOR THIRD PARTY MANUFACTURING
- ♦ Degree in Pharmacy from the University of Valencia.
- ♦ Diploma in Public Health by EVES
- ♦ University Degree Specialist in Clinical Analysis ( Cardenal Herrera-CEU University)
- ♦ Degree in Orthopedics (University of Valencia)
- ♦ PhD student in "Veterinary Master Formulation" ( Cardenal Herrera-CEU University).
- ♦ Member of the Board of Directors of Master Formulation of the Very Illustrious Official College of Pharmacists of Valencia.





04

# Structure and Content

The structure of the contents has been designed by a team of professionals knowledgeable of the implications of training in daily pharmaceutical practice in Sterile Pharmaceutical Formulation, aware of the relevance of the present time to be able to elaborate Master formulas with guarantee, with quality teaching by means of new educational technologies.



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## Module 1. Sterile Dosage Forms

- 1.1. Definition of Sterile in Master Formulation
- 1.2. Expiration Dates of Sterile Pharmaceutical Formulas
  - 1.2.1. Protocols for Sterile Processing
    - 1.2.1.1. Working PG
    - 1.2.1.2. Microbiological Control SOPs
    - 1.2.1.3. Lyophilization Protocol
- 1.3. Sterilization
  - 1.3.1. Heat Sterilization
    - 1.3.1.1. Moist Heat
    - 1.3.1.2. Dry Heat
      - 1.3.1.2.1. Sterilization of Oils
      - 1.3.1.2.2. Sterilization of Glass Materials
      - 1.3.1.2.3. Tindalization
  - 1.3.2. Sterilization by Filtration
    - 1.3.2.1. Filter Types
  - 1.3.3. Other Types of Sterilization
  - 1.3.4. Disinfectants
    - 1.3.4.1. Most Common Disinfectants
- 1.4. External Sterile Pharmaceutical Forms. Eye Drops and Ointments
- 1.5. Internal Sterile Pharmaceutical Forms: Parenterals and Freeze-Dried





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

05

# Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***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"

## At TECH we use the Case Method

In a given clinical 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 an abundance of scientific evidence on the effectiveness of the method. Pharmacists learn better, more quickly 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. Gervas, 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 potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, attempting to recreate the actual conditions in a pharmacist'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. Pharmacists who follow this method not only achieve the assimilation of concepts, but also develop their mental capacity through exercises to evaluate real situations and apply 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 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.



## 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.

*Pharmacists 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.*





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 115,000 pharmacists with unprecedented success, in all clinical specialties. Our pedagogical methodology is developed in a highly demanding environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years old.

*Re-learning 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 (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.

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



### Study Material

All teaching material is created specifically for the course by specialist pharmacists who will be teaching the course, so that the didactic development is highly specific and accurate.

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.



### Video Techniques and Procedures

We bring you closer to the latest techniques, to the newest educational advances, to the forefront of current pharmaceutical care procedures. 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

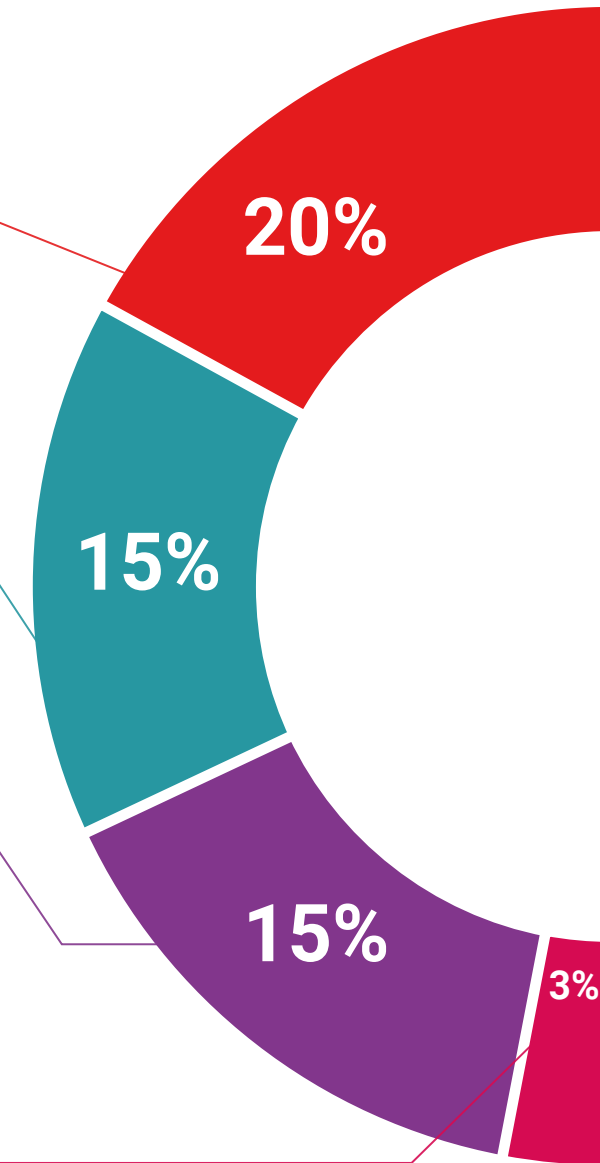
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

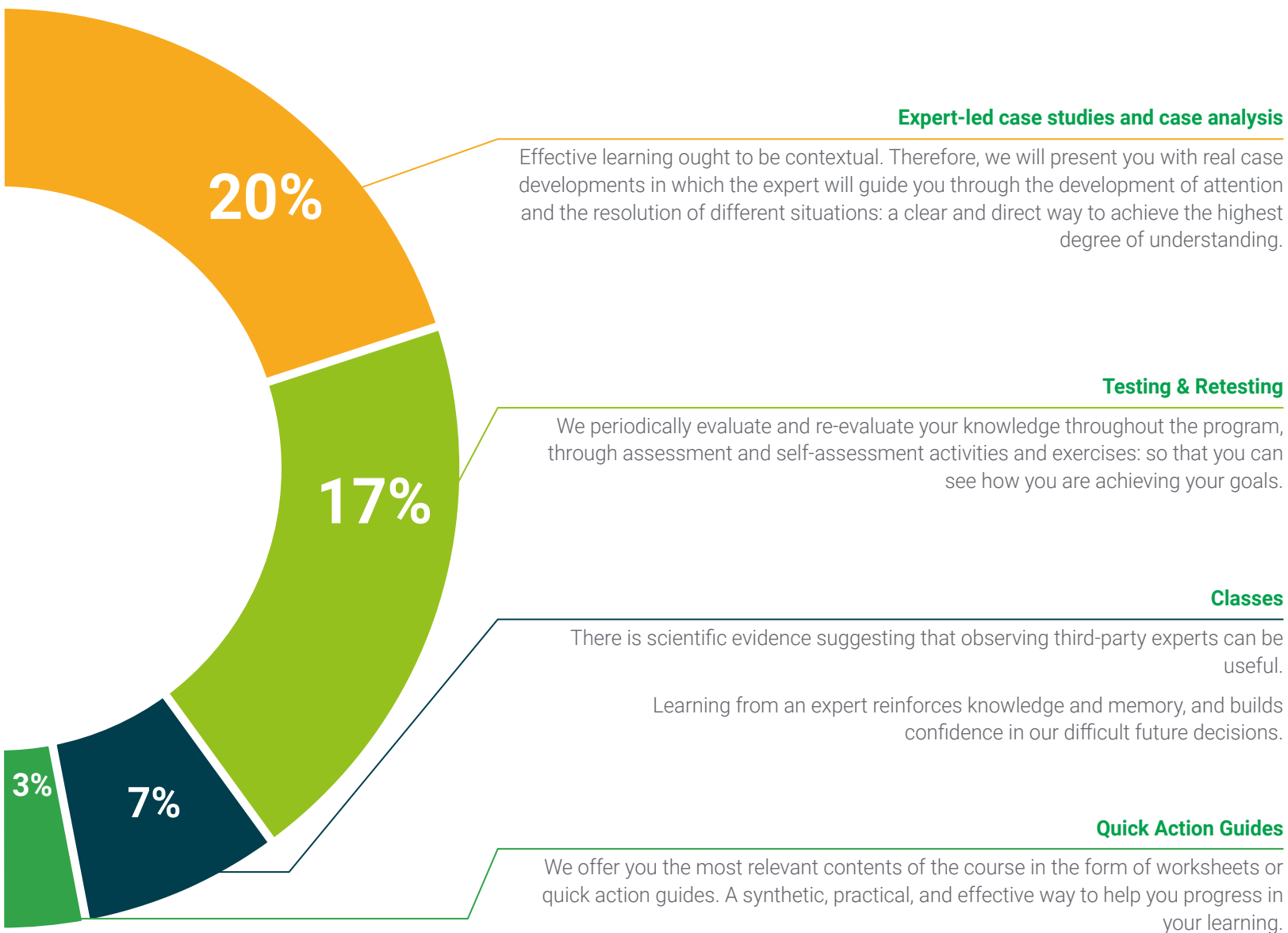


### Additional Reading

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







06

# Certificate

The Postgraduate Certificate in Sterile Pharmaceutical Formulation guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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*Successfully complete this program and receive your diploma without travel or cumbersome paperwork"*

This private qualification will allow you to obtain a **Postgraduate Certificate in Sterile Pharmaceutical Formulation** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Sterile Pharmaceutical Formulation**

Modality: **online**

Duration: **6 weeks**

Accreditation: **9 ECTS**



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

**tech** global university

**Postgraduate Certificate**  
**Sterile Pharmaceutical Formulation**

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- » Accreditation: 9 ECTS
- » Schedule: at your own pace
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