

# Postgraduate Certificate

## Cosmetic Design, Development and Manufacturing



## Postgraduate Certificate

### Cosmetic Design, Development and Manufacturing

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/pk/pharmacy/postgraduate-certificate/cosmetic-design-development-manufacturing](http://www.techtitute.com/pk/pharmacy/postgraduate-certificate/cosmetic-design-development-manufacturing)

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# 01

# Introduction

Good manufacturing practices for cosmetic products, as well as the specific planning of their manufacture and the intensive study of their dermatological functionality are fundamental in this industry. This is a sector in which there is an ever-increasing demand, which has led to the development of increasingly specific and varied techniques and treatments that are constantly being updated as scientific studies advance. Based on this, and so that professionals in this area can keep up to date with the latest developments, TECH and its team of experts have developed this complete and comprehensive program. In addition, its 100% online format makes it ideal for combining it with any work activity.





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*If you are looking for a program that will allow you to update your knowledge of cosmetics development and manufacturing, this is the perfect educational opportunity”*

The specificity and specialty in the pharmaceutical work of cosmetics manufacturing are fundamental aspects that the professional in this area must take into account when undertaking a project of this type. Working on perfecting these skills, as well as updating their knowledge based on the scientific innovations that are being developed regarding the use of different techniques or the use of certain synthetic or natural materials is, therefore, a fundamental requirement to guarantee the success of the product. That is why TECH has decided to launch this Postgraduate Certificate.

This is a program that will allow the pharmacy professional to get up to date on advances in cosmetic ingredients, as well as strategies for effective design and proper processing. Through an exhaustive tour of the different active ingredients, you will delve into biological compounds and sunscreens, with special emphasis on surfactants, emulsifiers and rheology modifiers. In addition, you will also delve into the different sections of project planning, concluding with the latest specifications related to the development of perfumes.

For this you will have 300 hours of the best theoretical, practical and online content, which you can access for 12 weeks from any device with an internet connection. And in order to make this qualification educational experience an even more accessible and customizable experience, all the material will be available from the beginning of the course, and can be downloaded for offline consultation, so that you can organize the course according to your time and geographical availability.

This **Postgraduate Certificate in Cosmetic Design, Development and Manufacturing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Practical cases presented by experts in Cosmetic Science and Technology
- ◆ 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



*You will have unlimited access to the Virtual Classroom during the 12 weeks of the course. No rush or tight schedules, but adapted to your absolute availability"*

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*You will be able to know in detail the most innovative aspects related to the benefits and drawbacks of the use of active ingredients of synthetic origin in cosmetic production"*

The program's teaching staff includes professionals from the sector 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.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*Would you like to learn about the advances in natural active ingredients in cosmetics? If the answer is yes, enroll in this program and do not miss this opportunity to get it.*

*A program designed so that you can perfect, 100% online, your professional skills in the production of perfumes in a guaranteed way.*



# 02 Objectives

The demands required for the correct elaboration of the cosmetic product and the lack of programs in the educational market that allow professionals in this area to work on the knowledge of the latest developments, is what has motivated TECH to develop this program. Therefore, its objective is to serve as a guide for the graduate in their knowledge update, through the provision of the most sophisticated and advanced academic tools and the best theoretical, practical and additional content.





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*The more demanding your objectives are, the more you will be able to get out of this Postgraduate Certificate thanks to the amount of material you will find in it"*



## General Objectives

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- ◆ Analyze the main active ingredients according to their origin and nature
- ◆ Compile all compounds needed to formulate cosmetic products
- ◆ Determine the different types of Cosmetic Product according to their Composition
- ◆ Evaluate the benefits of nanotechnology and biotechnology in cosmetics
- ◆ Develop a global vision of the manufacturing process of a cosmetic product, from the initial idea to its launching on the market
- ◆ Analyze the processes that take place from the reception of raw materials to their final distribution, as well as the implementation of good manufacturing practices, quality control and validation of the processes, and the different water purification treatments as the main raw material used in the formulation of cosmetics
- ◆ To examine the raw materials used for the development of new cosmetic products
- ◆ Establishing the different ways of formulating cosmetic products



*Thanks to the in-depth nature of the syllabus, you will be able to implement in your practice the strategies for the elaboration of solutions, suspensions and emulsions that are currently obtaining the best results"*





## Specific Objectives

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### Module 1. Cosmetic Ingredients

- ◆ Analyze the most commonly used natural and synthetic active ingredients and main properties
- ◆ Evaluate the role of vitamins and biological compounds in cosmetic products
- ◆ Examine the main types of sunscreens, properties and features
- ◆ Identify the main compounds in cosmetic formulations
- ◆ Determine new trends in cosmetic product formulation and their benefits
- ◆ Demonstrate how science has enhanced cosmetics

### Module 2. Cosmetic Development and Manufacturing

- ◆ Analyze the process that a product goes through from its small-scale creation in the laboratory to its production on an industrial scale
- ◆ Develop the different raw materials that make up the skeleton of a cosmetic product one at a time
- ◆ Examine the plastics or packaging used in the cosmetic industry
- ◆ Determine the different operations and basic manufacturing processes of the different cosmetic forms under the UNE-EN-ISO standard: 22716:2008
- ◆ Evaluate the different cosmetic forms on the market
- ◆ Establish the importance of R&D&I in cosmetic products development; innovation remains key to consumer requirements
- ◆ Compile the steps involved in perfume development, essence and subsequent applicability

03

# Course Management

TECH has selected for this Postgraduate Certificate in Cosmetic Design, Development and Manufacturing a specialized faculty in the area, so that the graduate can be updated by the hand of true connoisseurs of the sector. In addition, as they are professionals who combine teaching and pharmacy, they handle the most updated information, which has been included in the theoretical syllabus and in the additional material.



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*A teaching team made up of pharmaceutical specialists has participated in the development of the syllabus, as well as in the selection of the additional material included in this program"*

## Management



### **Dr. Mourelle Mosqueira, María Lourdes**

- ◆ Expert researcher in Cosmetic Science
- ◆ Technical Director at Balcare
- ◆ Researcher of the FA2 group of the Applied Physics Department of the University of Vigo
- ◆ Author of publications on Cosmetic Science
- ◆ Lecturer in undergraduate and graduate programs related to Cosmetic Science
- ◆ President of the Iberoamerican Society of Thalassotherapy
- ◆ Secretary of the Galician Society of Thermal Peloids
- ◆ PhD in Applied Physics, University of Vigo
- ◆ Degree in Pharmacy, University of Santiago de Compostela
- ◆ Diploma in Nutrition and Dietetics, University of Granada



## Professors

### Dr. Pando Rodríguez, Daniel

- ◆ CEO and Cofounder of Nanovex Biotechnologies
- ◆ Director of INdermal
- ◆ Researcher in Biotechnology for Medicine and Cosmetics
- ◆ PhD in Chemical Engineering, University of Oviedo
- ◆ Degree in Chemical Engineering, University of Oviedo
- ◆ Master's Degree in Business Administration and Project Management, ENEB

### Dr. Abril González, Concepción

- ◆ Chemistry Specialist in Chromatography at Bordas S.A
- ◆ Food Products Analyst for foreign trade at the Technical Inspection of Soivre in Seville
- ◆ Chromatography Analyst at Agrama Laboratories
- ◆ Researcher in the Analytical Chemistry Department at Anquimed
- ◆ PhD in Analytical Chemistry, University of Seville
- ◆ Professional Master's Degree in Professional Specialization in Pharmacy: Pharmaceutical Industry, University of Seville
- ◆ Professional Master's Degree in Cosmetics and Dermopharmacy from the University of Seville
- ◆ Professional Master's Degree in Chemistry, University of Seville

# 04

# Structure and Content

TECH uses the best academic tools and the effective and innovative Relearning methodology in all of its programs. In addition, it guarantees a series of minimum hours of additional material in different formats, so that students can not only contextualize the information developed in the syllabus, but also deepen in those aspects they consider more interesting or relevant for their work performance. All this is what makes programs like this one the best in the market, thanks to which the pharmacist will be able to update their knowledge thoroughly, contributing to improve their professional future through a 100% online program.





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## Module 1. Cosmetic Ingredients

- 1.1. Active Ingredients of Natural Origin I: Vegetable Origin
  - 1.1.1. Plant-Derived Active Ingredients in Skin Care
  - 1.1.2. Plant-Derived Active Ingredients in Hair Care
  - 1.1.3. Other Applications of Plant-Derived Active Ingredients
- 1.2. Active Ingredients of Natural Origin II: Animal and Mineral Origin
  - 1.2.1. Animal and Mineral-Derived Active Ingredients in Skin Care
  - 1.2.2. Animal and Mineral-Derived Active Ingredients in Hair Care
  - 1.2.3. Other Applications of Animal and Mineral-Derived Active Ingredients
- 1.3. Synthetic Active Ingredients
  - 1.3.1. Synthetically Derived Active Ingredients in Skin Care
  - 1.3.2. Synthetically Derived Active Ingredients in Hair Care
  - 1.3.3. Other Applications of Synthetically Derived Active Ingredients
- 1.4. Vitamins and Biological Compounds
  - 1.4.1. Vitamins in Cosmetics
  - 1.4.2. Proteins Peptides in Cosmetics
  - 1.4.3. Prebiotics and Probiotics in Cosmetics
  - 1.4.4. Other Biological Compounds in Cosmetics
- 1.5. Sunscreens
  - 1.5.1. Sunscreens in cosmetics: operation and classification
  - 1.5.2. Chemical Sunscreens
  - 1.5.3. Physical Sunscreens
- 1.6. Surfactants, Emulsifiers and Rheology Modifiers
  - 1.6.1. Surfactants and emulsifiers: structures, properties and types
  - 1.6.2. Use of Surfactants and Emulsifiers in Cosmetic Formulations
  - 1.6.3. Rheology Modifiers
- 1.7. Colorants and Pigments
  - 1.7.1. Natural and Synthetic Dyes
  - 1.7.2. Organic and Inorganic Pigments
  - 1.7.3. Formulations with Dyes and Pigments

- 1.8. Preservatives
  - 1.8.1. Uses of Preservatives in Cosmetics
  - 1.8.2. Preservatives of Natural Origin
  - 1.8.3. Preservatives of Synthetic Origin
- 1.9. Biotechnology in Cosmetics
  - 1.9.1. Biotechnology in Cosmetics
  - 1.9.2. Biotechnological Tools for Cosmetics
  - 1.9.3. Cosmetic Active Ingredients Derived from Biotechnology
- 1.10. Nanotechnology in Cosmetics
  - 1.10.1. Nanotechnology in Cosmetics
  - 1.10.2. Nanotechnological Tools and Systems in Cosmetics
  - 1.10.3. Uses of Nanotechnological Systems: Advantages and Benefits

## Module 2. Cosmetics Development and Manufacturing

- 2.1. The Cosmetic Industry
  - 2.1.1. The Cosmetics Industry Sector
  - 2.1.2. Briefing or Initial Idea
  - 2.1.3. Laboratory to Pilot Testing
- 2.2. Cosmetic Product Manufacturing Processes
  - 2.2.1. Manufacturing and Subsequent Quality Control
  - 2.2.2. Packaging, Conditioning and Labeling
  - 2.2.3. Storage and Distribution
- 2.3. Raw Materials for Cosmetics Manufacturing
  - 2.3.1. Water Used in the Cosmetic Industry
  - 2.3.2. Antioxidants and Preservatives
  - 2.3.3. Moisturizers, Emulsifiers, Silicones and Polymers
- 2.4. Cosmetic Packaging
  - 2.4.1. Materials
  - 2.4.2. Trends in Cosmetic Packaging
  - 2.4.3. Packaging for Children's Cosmetics



- 2.5. Manufacturing Operations and Processes in Different Cosmetic Forms
  - 2.5.1. Good Manufacturing Practices for Cosmetic Products UNE-EN-ISO: 22716:2008
  - 2.5.2. Formulations Prior to Cosmetic Development
  - 2.5.3. Prototypes Preparation and Formulation Examples
- 2.6. R&D in Cosmetic Product Development
  - 2.6.1. New Cosmetic Forms
  - 2.6.2. TOP Cosmetic Ingredients
  - 2.6.3. New Plant-Derived Ingredients
- 2.7. Solution, Suspension and Emulsion Preparation
  - 2.7.1. Textures
  - 2.7.2. Aqueous, Micellar and Oily Solutions
  - 2.7.3. Suspensions and Emulsions
  - 2.7.4. Gels and Cremigels
- 2.8. Solid and Semi-Solid Cosmetics Preparation
  - 2.8.1. Sustainability and Practicality
  - 2.8.2. Sensoriality and Efficiency: New Formats
    - 2.8.2.1. Soaps and Syndets
    - 2.8.2.2. Ointments and Salves
  - 2.8.3. Loose Powder vs. Compacts: Uses
- 2.9. Other Cosmetic Forms and Substrates
  - 2.9.1. Aerosols
  - 2.9.2. Foams
  - 2.9.3. Single Doses
    - 2.9.3.1. Mask Tissue
    - 2.9.3.2. Impregnated Wipes
- 2.10. Perfume Manufacturing
  - 2.10.1. Perfume: Background
  - 2.10.2. Raw Material Origin, Composition and Application
  - 2.10.3. Alcoholic Fine Perfumery
  - 2.10.4. IFRA Standards

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.





*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 be confronted with multiple simulated clinical cases based on real patients, in which they will have to investigate, establish hypotheses and ultimately, 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 will 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 power 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 grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their 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.

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 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 115,000 pharmacists have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. This 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.

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

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.



### Video Techniques and Procedures

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch them as many times as you want.



### 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.

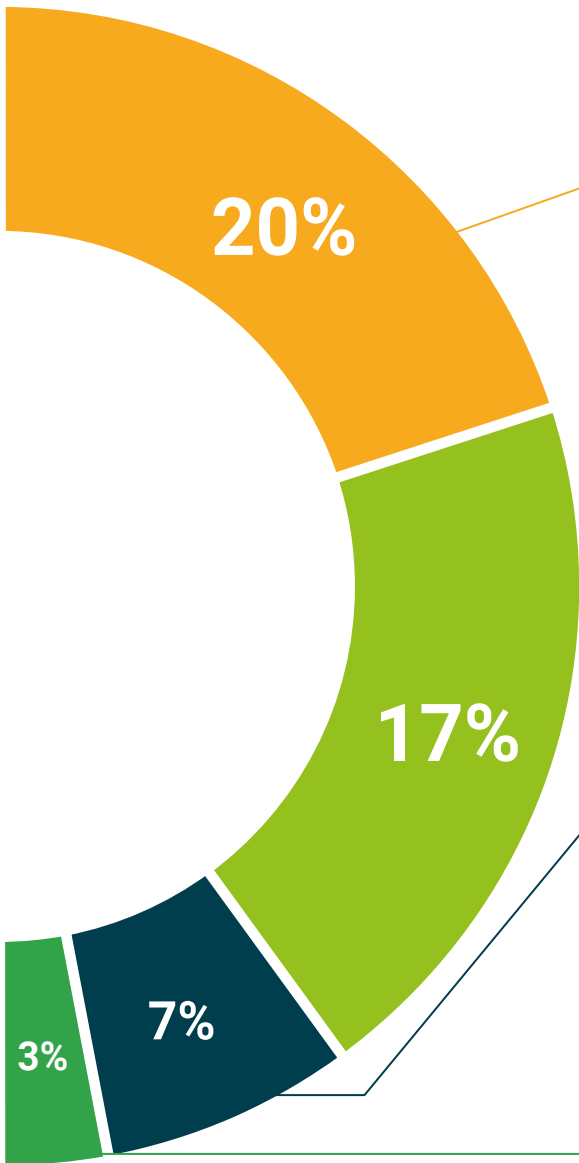
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



### 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, 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.



### 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 Cosmetic Design, Development and Manufacturing 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 Cosmetic Design, Development and Manufacturing** contains the most complete and up-to-date scientific program on the market.

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

The certificate 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 Cosmetic Design, Development and Manufacturing**  
Official N° of hours: **300 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  
online training

development languages

virtual classroom

**tech** technological  
university

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