



### Formulation of Natural Cosmetics

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-formuation-natural-cosmetics

## Index

06

Certificate

p. 30

# 01 Introduction

Faced with the imminent growth of cosmetic products in the pharmaceutical industry, medicine is seeking to analyze and expand its knowledge of the materials that make up their structure. In this way, its professionals will know what natural properties each of the products possesses, and in turn, what benefits they have in dermatological treatments, in order to provide the professionals of this sector with all the information through which they can get up to date in this field can count on this TECH program. It is one of the best in the world, since it has key factors such as its online format and its wide international teaching staff, with which the specialist will be able to know in detail the latest specialist will be able to know in detail the cosmetic novelties related to the natural field in a way that is totally compatible with the activity of their practice.



### tech 06 | Presentation

Cosmetics, often identified as a branch designed for beauty, has become a range of possibilities for medical solutions, implementing from its field solutions to pathologies or dermatological problems Thanks to this, today, many of the diseases related to skin care have seen improvements from the formulation of cosmetic products

For this reason, medicine and its adaptation of products for their employability have served as a transport vehicle for the advancement of different clinical procedures. However, its formulation for treatment must be previously studied, since the professional must identify the main natural components that benefit the patient.

And in order to serve as a guide in their update in this field, the specialist can count on this educational option program It is a Postgraduate Diploma in which different modules will be developed that will allow the students to delve into the most relevant updates and postulates of medical science In the same way, the practitioner will deepen in the strategies and techniques of aromacosmetics and nutricosmetics with more relevance in the health field

Thanks to its convenient 100% online format, you will be able to access all the content of the virtual campus, allowing you to download the content of the program to consult it freely in your free time, since there is no pre-established schedule that would interrupt the student's daily routine.

This **Postgraduate Diploma in Formulation of Natural Cosmetics** 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
- 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





Download the content of the program and update your knowledge independently whenever you wish, deepening your knowledge on the topics of greatest interest"

The program's teaching staff includes professionals from sector who contribute their work experience to this 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 academic year For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Update your knowledge in the formulation of Natural Cosmetics and study their components and medical benefits.

Identifies new medical updates that are useful for the formulation of cosmetics in different dermatological treatments.







### tech 10 | Objectives



### **General Objectives**

- To provide the graduate with the most up-to-date information on the formulation of natural cosmetics and their manufacture within the current legislative framework
- To provide the specialist with the most innovative teaching tools that will allow him/ her to achieve his/her own educational objectives in a guaranteed manner and in the shortest possible time
- To facilitate the implementation in your practice of the pharmaceutical strategies and techniques that are currently obtaining the best results



With this Postgraduate Diploma in Formulation of Natural Cosmetics, you will be able to implement the most innovative and effective cosmetic formulations in your medical practice"





#### Module 1. Cutaneous Application in Cosmetics

- Identify the different layers of the skin and their morphology
- Determine the weight, thickness and coloration of the skin
- Determine the cutaneous microrelief: skin eminences, cones and orifices
- Determine epidermal and dermal physiology
- Determine and identify the cutaneous adnexa, features and physiology
- Analyze skin functions
- Determine and identify the different skin types and features

#### Module 2. Natural Cosmetics, Aromacosmetics and Nutricosmetics

- Determine the concepts of natural, organic, vegan, marine and thermal cosmetics
- Examine the compounds in plants and develop extraction methods
- Compile the different elements that nature offers to formulate natural cosmetics
- Analyze the phytocosmetic active ingredients available on the market for natural cosmetics formulations
- Develop different types of cosmetic formulations with raw, natural materials
- Develop the concept of Nutricosmetics and analyze the different products on the market

#### Module 3. Cosmetics 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





### tech 14 | Course Management

### 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
- Certificate in Nutrition and Dietetics, University of Granada

#### **Professors**

#### Dr. Abril González, Concepción

- Chemist Chromatography Specialist, 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 Anguimed
- PhD in Analytical Chemistry, University of Seville
- Master's Degree in Professional Specialization in Pharmacy: Pharmaceutical Industry, University of Seville
- Master's Degree in Cosmetics and Dermopharmacy from the University of Seville.
- Degree in Chemisty, University of Seville

#### Dr. Vérez Cotelo, Natalia

- Pharmacist
- Municipal Pharmaceutical Inspector, advice de Sanidad, Xunta de Galicia
- Primary Care Pharmacist
- Assistant pharmacist
- Researcher specializing in Pharmaceutical Care and Pharmacotherapeutic Follow-up
- Author of several articles published in specialized magazines. Author of Multiple articles published in Specialised journals
- Teacher in university studies of Pharmacy
- PhD in Psychology, UNED
- \* Degree in Pharmacy, University of Santiago de Compostela

#### Dr. Etxebeste Mitxeltorena, Mikel

- Researcher in the Department of Medicinal Chemistry and Translational Biology of the CIB-CSIC
- Assistant Pharmacist at Juan de Soto Pharmacy
- PhD in Pharmacy from the University of Navarra
- Degree in Human Pharmacy and Nutrition and Dietetics, University of Navarra
- \* Master's Degree in Dermocosmetics and Formulation from the University UDIMA



A unique, key, and decisive educational experience to boost your professional development"

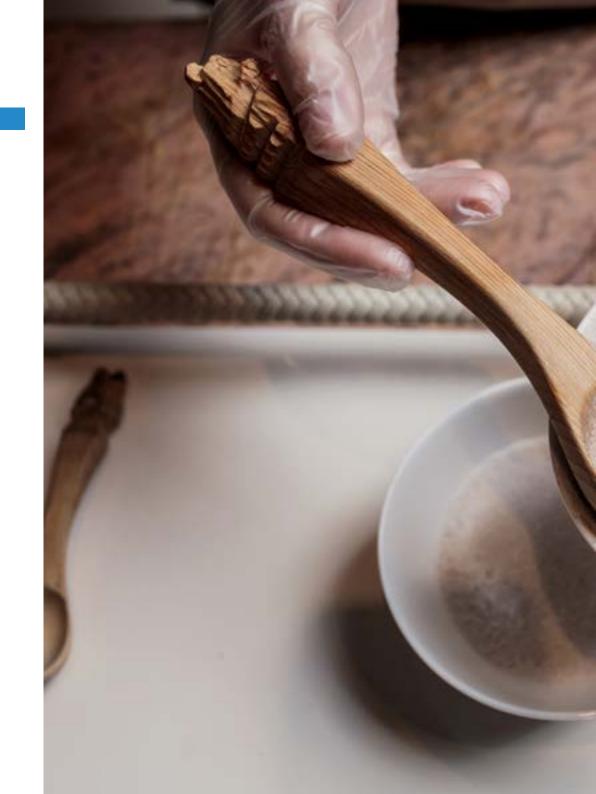




### tech 18 | Structure and Content

#### Module 1. Cutaneous Application in Cosmetics

- 1.1. Skin. Cosmetics and the Skin Barrier
  - 1.1.1. The Skin: The Cutaneous Border
  - 1.1.3. The Skin Surface: Skin Microclimate and Cosmetics
  - 1.1.4. Skin Protection and Cosmetics
- 1.2. Epidermis: First in Cosmetics Action
  - 1.2.1. Structure Relation with Alterations of Cosmetic Relevance
  - 1.2.2. Epidermis Cell Junctions and Cohesion: Relationship with Cosmetics
  - 1.2.3. Epidermis Layers: Relationship with Cosmetics
- 1.3. Dermis and Subcutaneous Cellular Tissue: Second in Cosmetics Action
  - 1.3.1. Dermis. Structure Relation and Physiology with Alterations of Cosmetic Relevance
  - 1.3.2. Fatty Subcutaneous Cellular Tissue: Structure Relation and Physiology with Alterations of Cosmetic Relevance
  - 1.3.3. Skin Vascularization and Innervation: Relationship with Cosmetic Alterations
  - 1.3.4. Link to Cosmetic Alterations
- 1.4. Keratogenesis and Melanogenesis: Relationship with Cosmetics
  - 1.4.1. Keratogenesis: Relationship with Alterations of Cosmetic Relevance
  - 1.4.2. Melanogenesis: Relationship with Alterations of Cosmetic Relevance
    1.4.2.1. Melanin Relevance to Skin Protection
- 1.5. Sebaceous and Sweat Glands: Relationship with Cosmetics
  - 1.5.1. Sebaceous Glands: Structure Relation and Physiology with Alterations of Cosmetic Relevance
  - 1.5.2. Sweat Glands: Structure Relation and Physiology with Alterations of Cosmetic Relevance
  - 1.5.3. Skin Secretions: Relationship with Cosmetic Application
- 1.6. Hair: Relationship with Cosmetics
  - 1.6.1. Hair Structure and Chemistry: Relationship with Cosmetic Application
  - 1.6.2. Hair Physiology: Relationship with Cosmetic capillary Treatments
  - 1.6.3. Hair Renewal Cycles: Relationship with Cosmetic capillary Treatments





### Structure and Content | 19 tech

- 1.7. Nails: Relationship with Cosmetics
  - 1.7.1. Nail Anatomy and Physiology: Relationship with Cosmetic Application
  - 1.7.2. The Nail Plate: Relationship with Cosmetic Application
  - 1.7.3. Factors that Affect Nail Growth: Relationship with Cosmetic Nail Treatments
- 1.8. Cutaneous Functions: Relationship with Cosmetics
  - 1.8.1. Functions of the Skin. Relationship with Cosmetic Application
  - 1.8.2. The Skin Barrier and Skin Protection
  - 1.8.3. Cutaneous Microbiota and Its Importance in Cosmetic Care
- 1.9. Skin Typology and Cosmetic Advice
  - 1.9.1. Skin Type Classification according to Epicutaneous Emulsion Cosmetic Advice
    - 1.9.1.1. Eudermic Skin
    - 1.9.1.2. Dry Skin
    - 1.9.1.3. Oily Skin
  - 1.9.2. Other Skin Types: Cosmetic Advice
  - 1.9.3. Factors that Affect Skin Condition
  - 1.9.4. Skin according to Sex and Ethnicity
  - 1.9.5. Skin during Pregnancy
  - 1.9.6. Skin in the Elderly
- 1.10. Skin Permeability: Relationship with Cosmetic Penetration
  - 1.10.1. Percutaneous Absorption
  - 1.10.2. The Corneal Barrier
  - 1.10.3. Cutaneous Penetration Routes
  - 1.10.4. Topical Substance Penetration
  - 1.10.5. Factors that Affect Penetration
  - 1.10.6. Mechanisms that Promote Penetration

### tech 20 | Structure and Content

#### Module 2. Natural Cosmetics, Aromacosmetics and Nutricosmetics

- 2.1. Natural Cosmetics
  - 2.1.1. Natural Cosmetics vs. Conventional Cosmetics
  - 2.1.2. Reasons to Choose Natural Cosmetics
  - 2.1.3. Ecological Benefits of Natural Cosmetics
  - 2.1.4. Safety of Natural Cosmetics Ingredients
- 2.2. Ingredients for Natural and Organic Cosmetics
  - 2.2.1. Vegetable Oils and Butters
  - 2.2.2. Emulsifiers
  - 2.2.3. Vitamins.
  - 2.2.4. Preservatives and Perfumes
- 2.3. Extraction Methods for Natural Cosmetics
  - 2.3.1. Hydroalcoholic Extracts
  - 2.3.2. Oleomacerates
  - 2.3.3. Glycerin Extracts
  - 2.3.4. Aqueous Extracts
  - 2.3.5. Plants Extracts for Natural Cosmetics
- 2.4. Phytocosmetic Active Ingredients
  - 2.4.1. Natural Water-Soluble Active Ingredients
  - 2.4.2. Natural Liposoluble Active Ingredients
  - 2.4.3. Clays
- 2.5. Essential Oils and Aromatherapy
  - 2.5.1 Essential Oils and Essences
  - 2.5.2. Extraction Methods for Essential Oils
  - 2.5.3. Chemotype
  - 2.5.4. Essential Oils of Major Cosmetic Relevance
  - 2.5.5. Hydrolats

- 2.6. Thermal and Marine Cosmetics
  - 2.6.1. Thermal Cosmetics
  - 2.6.2. Marine Cosmetics
  - 2.6.3. Marine Active Ingredients
  - 2.6.4. Sands, Salts, Algae, Microalgae and Marine Plants
- 2.7. Solid Natural Cosmetics
  - 2.7.1. Solid Cosmetics
  - 2.7.2. Solid Soaps, Shampoos and Conditioners
  - 2.7.3. Creams in Solid Form
- 2.8. Specific Regulations to Develop Natural Cosmetics
  - 2.8.1. Existing Legislation on Natural Cosmetics
  - 2.8.2. Natural Cosmetics Certifications
  - 2.8.3. Vegan Cosmetics
- 2.9. Natural and Organic Cosmetics Formulation
  - 2.9.1. Micellar Water Formulation
  - 2.9.2. Emulsion Formulation
  - 2.9.3. Gel Formulation
  - 2.9.4. Soap and Shampoo Formulation
- 2.10. Nutricosmetics
  - 2.10.1. Nutricosmetics and Nutritional Supplements for Skin Care
  - 2.10.2. Benefits of Nutricosmetics
  - 2.10.3. Safety in Nutricosmetics Consumption
  - 2.10.4. Main Active Ingredients in and Types of Nutricosmetics

#### Module 3. Cosmetics Development and Manufacturing

- 3.1. The Cosmetic Industry
  - 3.1.1. The Cosmetic Industry Sector
  - 3.1.2. Briefing or Initial Idea
  - 3.1.3. Laboratory to Pilot Testing
- 3.2. Cosmetic Product Manufacturing Processes
  - 3.2.1. Manufacturing and Subsequent Quality Control
  - 3.2.2. Packaging, Conditioning and Labeling
  - 3.2.3. Storage and Distribution
- 3.3. Raw Materials for Cosmetics Manufacturing
  - 3.3.1. Water Used in the Cosmetic Industry
  - 3.3.2. Antioxidants and Preservatives
  - 3.3.3. Moisturizers, Emulsifiers, Silicones and Polymers
- 3.4. Cosmetic Packaging
  - 3.4.1. Materials
  - 3.4.2. Trends in Cosmetic Packaging
  - 3.4.3. Packaging for Children's Cosmetics
- 3.5. Manufacturing Operations and Processes in Different Cosmetic Forms
  - 3.5.1. Good Manufacturing Practices for Cosmetic Products UNE-EN-ISO: 22716:2008
  - 3.5.2. Formulations Prior to Cosmetic Development
  - 3.5.3. Prototypes Preparation and Formulation Examples
- 3.6. R&D in Cosmetic Product Development
  - 3.6.1 New Cosmetic Forms
  - 3.6.2. TOP Cosmetic Ingredients
  - 3.6.3. New Plant-Derived Ingredients
- 3.7. Solution, Suspension and Emulsion Preparation
  - 3.7.1. Textures
  - 3.7.2. Aqueous, Micellar and Oily Solutions
  - 3.7.3. Suspensions and Emulsions
  - 3.7.4. Gels and Cremigels

- 3.8. Solid and Semi-Solid Cosmetics Preparation
  - 3.8.1. Sustainability and Practicality
  - 3.8.2. Sensoriality and Efficacy: New Formats
    - 3.8.2.1. Soaps and Syndets
    - 3.8.2.2. Ointments and Salves
  - 3.8.3. Loose vs. Compact Powders: Uses
- 3.9. Other Cosmetic Forms and Substrates
  - 3.9.1. Aerosols
  - 3.9.2. Foams
  - 3.9.3. Single Doses
    - 3.9.3.1. Mask Tissue
    - 3.9.3.2. Impregnated Wipes
- 3.10. Perfume Manufacturing
  - 3.10.1. Perfume: Background
  - 3.10.2. Raw Material Origin, Composition and Application
  - 3.10.3. Alcoholic Fine Perfumery
  - 3.10.4. IFRA Standards



Don't think twice and take the leap with a program that will guarantee you the improvement of your professional skills based on the requirements of the current market"





### tech 24 | Methodology

#### 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.



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:

- 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.





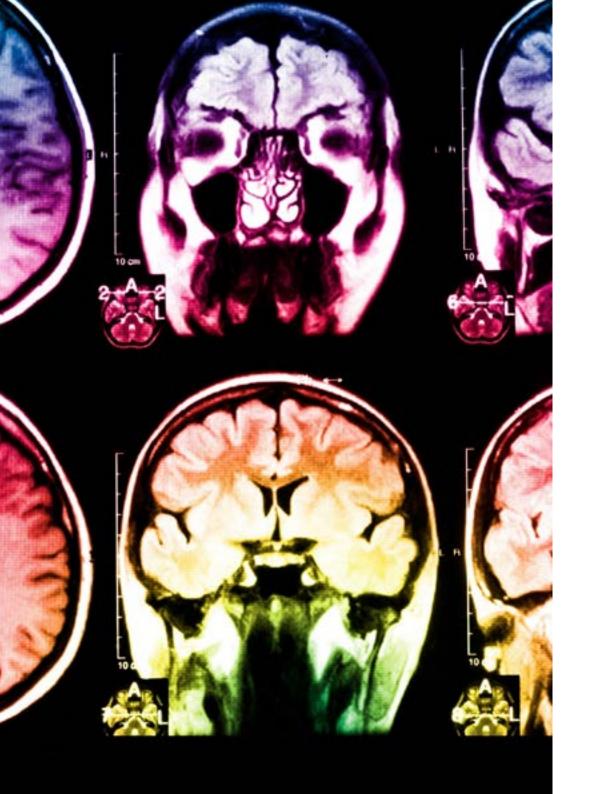
### Relearning Methodology

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.





### Methodology | 27 tech

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.

### tech 28 | Methodology

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.









### tech 32 | Certificate

This **Postgraduate Diploma in Formulation of Natural Cosmetics** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Diploma in Formulation of Natural Cosmetics
Official N° of hours: **450 h.** 



<sup>\*</sup>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.



## Postgraduate Diploma Formulation of Natural Cosmetics

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

