

Postgraduate Certificate

Active Principles of Plants,
Pharmaceutical Forms and
Galenic Preparations



Postgraduate Certificate

Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/active-principles-plants-pharmaceutical-forms-galenic-preparations

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01

Introduction

There are numerous food products made from plants to improve people's health. For example, infusions or essential oils. These natural treatments are widely accepted by patients, due to their diversity of applications or sustainability. In this sense, it is vital that physicians are aware of the latest scientific advances in this sector. In this way, they will be able to give the correct advice and achieve the desired effects. In this context, TECH implements a pioneering program for students to delve into recent studies on the Active Principles of Plants, the elaboration of Pharmaceutical Dosage Forms and Galenic Preparations. It should be noted that it is taught 100% online, thereby adapting to the schedules of busy professionals.



“

You will get a complete update on Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations thanks to this program”

The therapeutic use of Phytotherapy products is becoming more and more widespread in society. In this way, phytotherapeutic articles are used to reduce muscular ailments and even to treat cardiovascular diseases such as hypertension or arrhythmias. In view of this circumstance, specialists must be aware of the latest developments in order to incorporate them into their various treatments. In this way, they will expand their knowledge and acquire new skills that will benefit their professional practice.

For this reason, TECH has developed an educational program that will allow students to delve into the clinical studies that support the use of Glucosides, Sulfocyanogenetic Heterosides, Simple Phenols or Resins and their application to address different disorders. The syllabus will also address the application of quinones for the purpose of treating parasitic infections such as pneumocystis pneumonia (caused by fungi) or toxoplasmosis. Additionally, this educational journey is based on the most up-to-date dynamic materials available on the market. In this way, students have the guarantees they need to keep up to date in a professional career that is advancing by leaps and bounds.

It should be noted that the Postgraduate Certificate is based on the Relearning system. Through the continuous reiteration of key concepts, students will be able to progress naturally through the syllabus and reduce the long hours of study so frequent in other methodologies. In addition, it is a flexible program that allows students to access the most advanced topics whenever and wherever they wish. It only requires a digital device (cell phone, laptop or tablet) with an Internet connection to be able to view, at any time, the content hosted on the virtual platform. In addition, students will have access to a library full of multimedia resources such as explanatory videos, interactive summaries and infographics. A unique academic option in line with current academic times.

Ce **Postgraduate Certificate in Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations** contient le programme scientifique le plus complet et le plus actualisé du marché. Ses caractéristiques sont les suivantes:

- ♦ Practical case studies are presented by experts in Phytotherapy
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



No fixed schedules or rigid assessment timelines: that's what this flexible TECH program is all about"

“

This program includes case studies that you will incorporate into your practice to ensure safe recommendations of tannin-containing medicinal plants"

Delve further into flavonoids and their therapeutic application to enrich your patient counseling.

Do you want to analyze Isoprenoids, Saponins and Cardiotonic Heterosides in depth? Achieve it in just 180 hours with this program.

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



02 Objectives

Upon completion of this Postgraduate Certificate, the medical professional will have obtained an effective update on recent advances in Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations. A task that will be much easier to achieve thanks to the pedagogical tools available and in which TECH has used the latest technology applied to teaching. A unique opportunity to update through the best didactic content.





“

*You will increase your skills on
phytotherapeutic products thanks to the
numerous teaching resources of this program”*



General Objectives

- ♦ Define the therapeutic limits of Phytotherapy and identify the cases in which it can be used safely
- ♦ Describe the use of Phytotherapy oriented to the satisfaction of the needs derived from the patient's health problems and the prevention of complications, guaranteeing a safe and quality practice
- ♦ Solve cases related to the field of phytotherapy
- ♦ Explain the use and indication of medical devices, food supplements and/or drugs, assessing the expected benefits and associated risks
- ♦ Apply theoretical knowledge in daily practice





Specific Objectives

- Explain the application of the magistral formulation in Phytotherapy
- Explain the industrial processing of herbal medicines
- Define the main groups and properties with relation to the active ingredients
- Define the therapeutic application of phenols, flavonoids, tannins, isoprenoids, resins, alkaloids and other products

“

Delve into the scientific evidence on the use of Flavonoids and the improvement of vascular diseases through this university program"

03

Course Management

The faculty of this Postgraduate Certificate stands out for its excellent professional career in the pharmaceutical field, botany, research and teaching. All of them are areas in which they excel as well as for their human qualities. Both factors have been decisive for their inclusion in this program, where TECH seeks that the students obtain a first level update in Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations.



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You will have the support of a teaching staff made up of distinguished professionals from the phytotherapeutic sector”

Professors

Dr. Acero de Mesa, Nuria

- ◆ Pharmacist expert in Biotechnology
- ◆ Former Professor of Vegetable Physiology
- ◆ Full Professor of the Department of Pharmaceutical and Health Sciences at the Faculty of Pharmacy
- ◆ Principal investigator of the group Productos Naturales
- ◆ Doctor of Pharmacy
- ◆ Co-author of several scientific publications in specialized media.
- ◆ Member of: Team of the toxi-epidemiology line of the Observatory of Drug Addictions of the Valencian Community, National Service of Certification of Plants and Fungi and Technical Commission of monitoring.

Dr. Muñoz-Mingarro, Dolores

- ◆ Full Professor of the Department of Chemistry and Biochemistry of the Faculty of Pharmacy at the CEU San Pablo University
- ◆ Investigator
- ◆ Author of more than 30 scientific articles
- ◆ Prize for the best initiative awarded by Correo Farmacéutico for the book *"Manual de Fitoterapia"* (Phytotherapy Manual)
- ◆ D. in Biological Sciences from the Complutense University of Madrid
- ◆ Degree in Biological Sciences from the Complutense University of Madrid
- ◆ Graduate in Pharmacy from the Complutense University of Madrid.
- ◆ Member of: Spanish Society of Chromatography and Related Techniques SECYTA, Iberoamerican Network of Natural Products for Medicinal Use, Research Groups in Ripronamed.



Dr. González Rosende, Eugenia

- ♦ Pharmacist and Researcher specialized in the Therapeutic Area.
- ♦ Full Professor of the Department of Pharmacy at the Faculty of Health Sciences of the CEU Cardenal Herrera University
- ♦ Principal Investigator of the group on the Search for New Compounds with Therapeutic Activity at CEU Cardenal Herrera University
- ♦ Investigator of the SEPLAN group of the CEU Cardenal Herrera University
- ♦ Doctor of Pharmacy
- ♦ Author of several specialized books on organic chemistry for the clinical profession.

Dr. Balaguer Fernández, Cristina

- ♦ Pharmacist specialized in transdermal administration therapies
- ♦ Vice-Dean of the Faculty of Pharmacy at Cardenal Herrera University
- ♦ Assistant Professor in the Department of Pharmacy at the Faculty of Health Sciences of the CEU Cardenal Herrera University
- ♦ Coordinator of different Masters at CEU University.
- ♦ PhD in Pharmacy from CEU - Cardenal Herrera University
- ♦ Presentations and communications in national and international congresses

Ms. Buendía Sánchez, Esmeralda

- ♦ Technical Pharmaceutical Director Arkopharma Laboratories
- ♦ Director of the Scientific Department, Arkopharma, S.A.
- ♦ Author of *"El hipérico en el tratamiento de la depresión"* (Hypericum in the treatment of depression) and co-author of several publications
- ♦ Specialist in Pharmacy

Dr. Calatayud Pascual, Araceli

- ♦ Director of the Department of Pharmacy, Faculty of Health Sciences, CEU Cardenal Herrera University
- ♦ Assistant pharmacist in pharmacy office
- ♦ Coordinator of the Medicine Degree
- ♦ Coordinator of the External Internships of Medicine
- ♦ Coordinator of the second cycle of the Degree in Medicine
- ♦ Assistant Professor of the University Department of Pharmacy in the Faculty of Health Sciences of the CEU Cardenal Herrera University.
- ♦ Professor responsible for the subject of Pharmacology in the Degree of Medicine at the CEU Cardenal Herrera University.
- ♦ Participation in 41 papers and/or oral communications in national and international congresses.
- ♦ Researcher in 8 research projects financed by public and private institutions.
- ♦ Author of several scientific publications
- ♦ Doctor of Pharmacy. Cardenal Herrera University CEU
- ♦ Degree in Pharmacy. Cardenal Herrera University CEU
- ♦ Master's Degree in Community Pharmaceutical Care University of Valencia
- ♦ Diploma in Pharmaceutical Performance in Primary Care University of Valencia
- ♦ Pharmacist Specialist in Orthopedics University of Valencia

04

Structure and Content

The syllabus of this university program delves into the Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations from a theoretical-practical perspective. An approach that will allow the student to perform a complete update on the Glucids, Simple Phenols, Resins or alkaloids and their application. An extensive content that can be complemented with numerous multimedia material, essential readings and case studies that can be accessed whenever and wherever you want, from a digital device with an Internet connection.



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*Update your pharmaceutical competences in
Phytotherapy through an intensive and 100%
online Postgraduate Certificate"*

Module 1. Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations

- 1.1. Active Principles: Main Groups and Properties, as a Basis that Justifies the use of Phytotherapy
- 1.2. Carbohydrates, Lipids, Proteins, and Sulfocyanogenetic Heterosides and their Therapeutic Application
- 1.3. Simple Phenols, Coumarins and Lignans , and their Therapeutic Application
- 1.4. Flavonoids and their Therapeutic Application
- 1.5. Tannins and Quinones, and their Application
- 1.6. Isoprenoids, Saponins and Cardiotonic Heterosides, and their Application
- 1.7. Resins and their Application
- 1.8. Alkaloids and their Application
- 1.9. Magistral Formulation in Phytotherapy
- 1.10. Other Pharmaceutical Forms in Phytotherapy
- 1.11. Standards for the Proper Manufacture of Herbal Medicines



MUGWORT



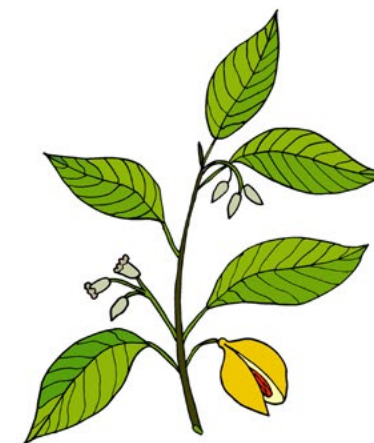
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CAYENNE PEPPER



NUTMEG



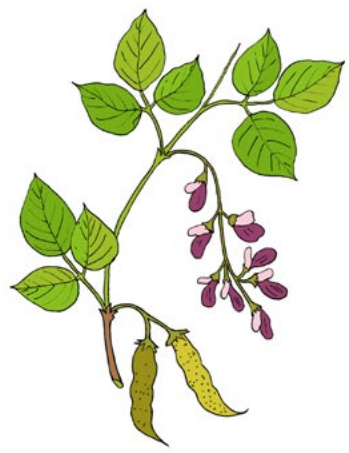
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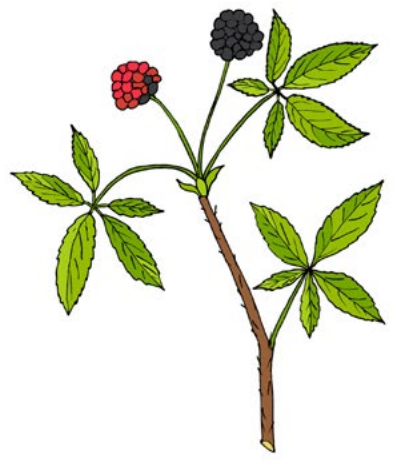
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GINKGO



MUCUNA



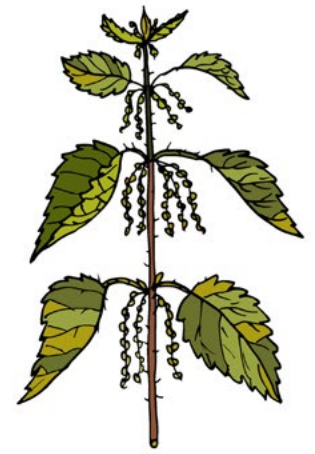
ELEUTHERO



Learn more about the main Active Principles of Plants: Glycosides, Lipids, Protides and Sulfocyanogenetic Heterosides through your digital device".



WELLIA



STINGING NETTLE



ST. JOHN'S WOF



05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“

TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

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 assess 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

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.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

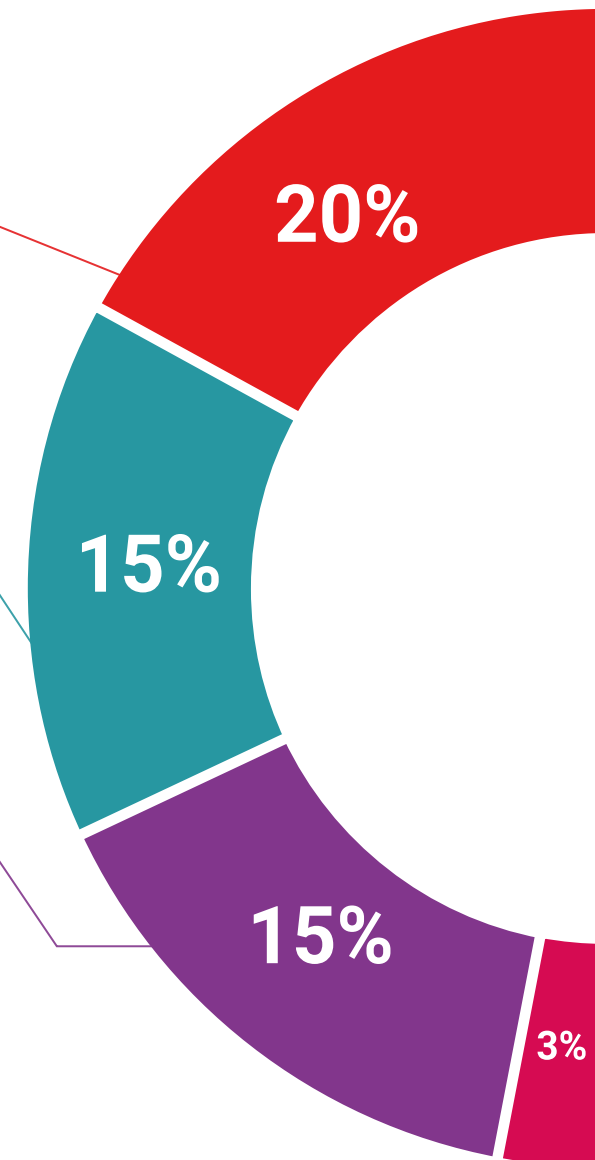
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

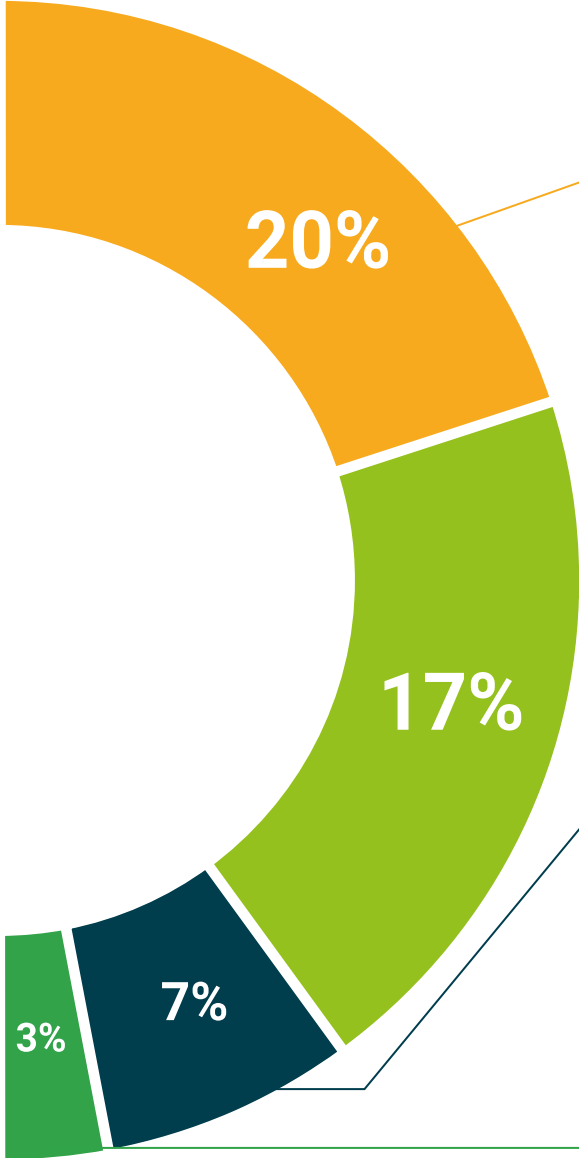
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



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 for 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 Active Principles of Plants, Pharmaceutical Forms and Galenic 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 university qualification without having to travel or fill out laborious paperwork”

This private qualification will allow you to obtain a **Postgraduate Certificate in Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations** 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 Active Principles of Plants, Pharmaceutical Forms and Galenic Preparations**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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- » Modality: online
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Postgraduate Certificate

Active Principles of Plants,
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