

**COURSE DATA****DATA SUBJECT****Code:** 34096**Name:** Phytotherapy**Cycle:** Undergraduate Studies**ECTS Credits:** 4.5**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
1201 - Degree in Pharmacy	Facultat de Farmàcia i Ciències de L'alimentació	5	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1201 - Degree in Pharmacy	Phytotherapy	ELECTIVES

COORDINATION

TERENCIO SILVESTRE MARIA CARMEN

SUMMARY

Phytotherapy comprises in total 4.5 credits and it is offered as an optative matter in the degree of Pharmacy. It is focused for giving to the student a global view of phytomedicines. It is a matter theoretical-practical focused for developing skills need for using this kind of drugs in among the professional of health. For that, the subjects are focused toward different aspects, which are summarized.

- Phytotherapy: concept and objectives
 - Quality control, crude drugs and phytomedicines. Standardization. Routes of administration.
 - Legal aspects of phytotherapy. Sources of information.
 - Application of phytotherapy. Pharmacological properties, toxicity and adverse reactions. Interactions with other drugs or phytomedicines. Therapeutically use in different pathologies:
- Insomnia, stress, anxiety y depression.
 - Venous insufficiency, atherosclerosis and hypertension
 - Respiratory troubles



- Digestive pathologies (anorexia, diarrhoea, constipation) and hepatic. Metabolic disorders.
- Urogenital pathologies
- Menopause and benign prostatic hyperplasia.
- Treatment of pain and inflammation. Skin diseases.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

The students need previous studies of Botany, Pharmacognosy and Pharmacology, because they develop the knowledge necessary for understanding the concept developed during the course.

COMPETENCES / LEARNING OUTCOMES

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Acquire knowledge of epidemiology and prevention of communicable and non-communicable diseases.

Act with autonomy in learning, making informed decisions in different contexts, issuing judgements based on experimentation and analysis, and transferring knowledge to new situations.

Assess the therapeutic effects of herbal medicinal products. Identify and assess the health risks associated with their use.

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Contribute to the design, development and implementation of solutions that respond to social demands, taking into account the Sustainable Development Goals as a reference.

Demonstrate critical and self-critical thinking in the field of the degree programme, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Develop skills related to the use and dispensing of phytotherapeutic medicines and other related preparations in the pharmacy, providing therapeutic advice and promoting their rational use.

Evaluate the efficacy of herbal medicinal products.

Evaluate the quality control of herbal medicinal products, medicinal plants and related preparations.



Intervene in health promotion and disease prevention activities in the individual, family and community spheres, with a comprehensive and multiprofessional vision of the health-disease process.

Know and understand, within the field of the degree programme, gender inequalities in society; integrate different needs and preferences based on sex and gender into the design of solutions and problem solving.

Know how to communicate effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

Know the pharmacological activity of the active principles of those drugs considered most important due to their therapeutic interest.

Know the relationship between environment and health.

Learn about the use, efficacy and safety of medicinal plants.

Module: Biology. Develop skills related to the beneficial effects of medicinal plants and understand the health risks associated with their misuse.

Module: Biology. Know the main metabolic pathways involved in the degradation of medicines.

Module: Medicine and Pharmacology. Know the properties and mechanisms of action of medicines.

Propose creative and innovative solutions to complex situations or problems within the field of knowledge, to respond to diverse professional and social needs.

Reinforce the acquisition of the general competences of the curriculum.

DESCRIPTION OF CONTENTS

1. GENERAL PHYTOTHERAPY

There are different units. The first develops 9 theoretical chapters in which different thematic units will develop general aspects of a posterior application in other units, in theory and practical sections in laboratory. The chapters will be the following (Chapter 1 to 9).

Chapter 1. Phytotherapy. Concept (crude drug, active principles, extract). Sources of information.

Chapter 2. Active metabolites from plants

Chapter 3. Medicinal plants. Farming and harvesting. Conservation.

Chapter 4. Quality control.

Chapter 5. Crude drugs and phytomedicines.

Chapter 6. Routes of administration.

Chapter 7. Aromatherapy. Therapeutic use of essential oils.

Chapter 8. Other complementary and alternative therapies.

Chapter 9. Legislation.



2. DESCRIPTIVE PHYTOTHERAPY

The descriptive phytotherapy is classified in 17 chapters (10 to 26) in which are developed the principal monographs of medicinal plants and crude drugs, and their properties. The classification is structured in function of the different anatomo-physiological systems and their pathologies. Each chapter includes botanical, phytochemical and pharmacological aspects of medicinal plants, as well as their therapeutic indications, adverse effects and interactions, posology and relevant bibliography

Chapter 10. Insomnia and stress.

Chapter 11. Depression and asthenia.

Chapter 12. Adaptogens and immunostimulants.

Chapter 13. Cardiac and venous insufficiencies.

Chapter 14. Antioxidants.

Chapter 15. Hypertension and atherothrombosis.

Chapter 16. Cough suppressants.

Chapter 17. Expectorants.

Chapter 18. Dyspepsia, flatulence and digestive troubles.

Chapter 19. Diarrhoea and constipation.

Chapter 20. Liver and biliary vesicle.

Chapter 21. Metabolism and endocrine system.

Chapter 22. Urinary disorders.

Chapter 23. Benign prostatic hyperplasia and sexual dysfunction.

Chapter 24. Menopause and associated disorders.

Chapter 25. Pain and inflammation..

Chapter 26. Skin pathologies.

3. QUALITY CONTROL OF VEGETAL DRUGS

This unit includes practices in laboratory and seminars. In they the student will be realize the control of quality if different crude drugs and medicinal plants following the indications of Spanish/European Pharmacopoeia. The principal protocols are:

- Botanical identification: macroscopic and microscopic analysis of selected material

- Phytochemical identification of reference principles or markers

- Quantification of samples following the standard protocol of Pharmacopoeias

- Final inform about all the results obtained during the practical sessions with a critical analysis about the identity, purity and quantity of each sample.

4. INTERPRETATION OF PHYTOTHERAPIC FORMULAE

In this unit the student will employ different bibliographical and informative sources for evaluating different formulae and commercial preparations for applying to specific diseases or disorders. The student should justify the therapeutic use of the different samples includes in the formula, the possible adverse effects



and the contraindications. Final inform about the results on the different formulae.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	2,00
Theory	29,00
Seminar	4,00
Laboratory	10,00
Total hours	45,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	10,00
Independent study and work	40,00
Preparation of lessons	17,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	67,00

TEACHING METHODOLOGY

- Plenary lectures (theory) with presentation of concept and contents, with the respective help of audiovisual and complemented with the help of the "Aula Virtual"
- Seminars with oral presentation of complementary subjects selected previously.
- Tutorage for groups of 16 students or individuals, for solving problems and specific cases previously selected by the student.
- Experimental sessions with groups of 16 students, which will be focused toward the resolution of real problems after the review of adequate sources of information.

EVALUATION



The final evaluation will be the following parts:

- Theoretical exam (75%). It will consist of the mixed evaluation of the knowledge acquired, with subjective and objective tests. The written exam will consist of topics to be developed and short answer questions.
- Seminars with oral presentation and followed by a discussion (5%).
- Practical sessions (15%): It will be valued through the continuous evaluation of the participation in the laboratory work, a practical exam and the oral presentation of questions. The possibility of carrying out a memory of practices is raised.
- Tutorials and continuous assessment exercises (5%).

The entire student needs a final mark of 5 over 10 for pass each part (practice and theory) and need to pass each one separately. The practical sections will be accepted for the year of realization and the next year. For the following years, the practical sections will be repeated again.

"remember that the PRACTICES are MANDATORY ATTENDANCE and therefore, NON-RECOVERABLE, in accordance with the provisions of article 6.5 of the UV Evaluation and Qualification Regulations for Bachelor's and Master's degrees. If, for justified reasons, you cannot attend, you must notify us with sufficient notice. In this way, the coordinator will be able to assign the student a session in another group."

Evidence of copying or plagiarism in any of the assessable tasks will result in failure to pass the subject and in appropriate disciplinary action being taken. Please note that, in accordance with article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of students to refrain from using or participating in dishonest means in assessment tests, assignments or university official documents.

In the event of fraudulent practices, the "**Action Protocol for fraudulent practices at the University of Valencia**" will be applied (ACGUV 123/2020):

<https://www.uv.es/sgeneral/Protocols/C83sp.pdf>

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- Ríos JL. Fitoterapia. 3ª ed., PUV: Valencia, 2021
- Castillo E, Solís I (eds.). Manual de Fitoterapia. 3ª ed., Elsevier-Masson: Barcelona, 2021
- Vanaclocha B, Cañigueral S. Fitoterapia. Vademécum de prescripción de plantas medicinales. 5ª ed, Masson: Barcelona, 2019
- Cañigueral S, Vila R, Wichtl M. Plantas Medicinales y Drogas Vegetales para infusión y Tisana. Un Manual de Base Científica para Farmacéuticos y Médicos. OEMF International: Milán, 1998



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- European Scientific Cooperative on Phytotherapy (ESCOP) Monographs. The Scientific Foundation for herbal Medicinal Products. 2ª ed, 2003 y suplemento 2009, ESCOP: Exeter.
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- Heinrich M, Barnes J, Prieto JM, Gibbons S, Williamson EM. Fundamentals of Pharmacognosy and Phytotherapy. 3ª ed., Elsevier: Amsterdam; 2018
- Blumenthal M (ed). The complete German Commission E Monographs. Therapeutic Guide to Herbal Medicines. American Botanical Council: Austin, 1998.
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