

**COURSE DATA****DATA SUBJECT**

Code: 34098
Name: Dermopharmacy
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	Dermopharmacy	ELECTIVES

COORDINATION

DIEZ SALES OCTAVIO

SUMMARY

Dermopharmacy is in charge of the elaboration and pharmaceutical control of the different application preparations on the external surfaces of the human body dedicated to complete diverse hygienic, protective, aesthetic or correctives. In this discipline the characteristics of the skin, hair follicles, eccrine sweat glands, apocrine gland and sebaceous gland will be studied as well as the anomalies that justify the use of diverse prepared cosmetics. The basic aspects of formulation of diverse prepared dermofármaceúticos with specific actions are also contemplated. Also, the rehearsals of security and effectiveness of the cosmetic preparations and the guidelines of good practices of production of cosmetic products are studied.

PREVIOUS KNOWLEDGE**RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

OTHER REQUIREMENTS

It is recommended to have studied the matter of Pharmaceutical Technology



COMPETENCES / LEARNING OUTCOMES

1201 - Degree in Pharmacy

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

Apply different cosmetic ingredients in the preparation of cosmetic products.

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 to elaborate the different dermopharmaceutical forms.

Know about the skin, skin appendages and mucous membranes as living substrates of dermopharmacy and about their dysfunctions.

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 safety and efficacy controls of cosmetic preparations.

Make use of good manufacturing practice guidelines in the preparation of dermopharmaceutical preparations.

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

Recognise dermopharmaceutical preparations within their legal framework.

Reinforce the acquisition of the general competences of the curriculum.

DESCRIPTION OF CONTENTS

1. Introduction to dermopharmacy

- Prepared dermofarmacéuticos: definitions and classification. Legal goal. I inventory and Nomenclature of



Cosmetic Ingredients (INCI).

- The skin. Physiology and its structures. Dysfunctions of the subcutaneous and conjunctive. Defect of the epidermal structure. Aspects of the skin aging pattern: eccrine glands, hair follicles and the nails. Physiology and its structures. Defects of the sebaceous gland. Defects of cyclic activity of hair follicle. Malfunction of the nails.
- The tooth and oral health. Problems of oral health.

2. Ingredients and pharmaceutical forms

- Natural Substances. Excipients and active principles of mineral origin, vegetable and, animal.
- Synthesis Substances, excipients and active principles.
- Cosmetic Forms and formulation approaches: Generalities

3. Compounding and dispensing cosmetic products

- Cosmetic moisturizer. Humectants. Components of the NMF. Lipids and moisturizing emulsions. Formulation types.
- Cosmetic for skin aging. Regeneration of skin. Disorders of the skin. Products for oil skins. Specific treatment for acne Types of formulation.
- Sunscreen, suntan and anti-sunburn preparations. Suntan preparations. Palliative preparations
- Bath preparations. Foam baths. Formulation and types of products. After-bath products. Shampoos. Formulations. Anti-dandruff shampoos. Conditioning shampoos. Hair tonics.
- Other cosmetic treatments. Protective creams. Hair straighteners: types and preparation. Antiperspirants and deodorants. Coloured make-up preparations.
- Dentifrices. Basic requirements of a dentifrice. Toothpastes. The toothbrush and the toothbrushing. Mouthwashes.

4. Security and efficacy assays of cosmetic products

- Alternative methods testing for cosmetic products evaluation.
- Efficacy of a cosmetics products. Non-invasive biophysics techniques
- Methods biophysical non invasivos and physiologic state of the skin. Hydrate of the horny stratum: electric methods, methods espectroscópicos. Diffusion of water in the horny stratum. pH of the cutaneous surface. Coloration of the skin. Determination of the sanguine flow at cutaneous level. Termografía. Properties biomecánicas of the skin



5. Good manufacture practice of cosmetic products

- Good practices of production of cosmetic products. Personal. Local. equipment. Production, packed and storage of completed products

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	4,00
Theory	27,00
Laboratory	14,00
Total hours	45,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	62,50
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	62,50

TEACHING METHODOLOGY

Theoretical classes. In this classes the professor will give a general vision of the topic study object making special stress in the new aspects or of special complexity and making use of the new tools of the information and communication. They will be indicated the students the points that should revise previously to the attendance to each class. The professor provides the student's participation.

Practical of laboratory . It will be carried out the elaboration in different cosmetic ways



Tutorships. The students will go to them in reduced groups. In them, the professor will evaluate the process of the students' in a way general learning. Equally, the tutorships will be good to solve doubts that you/they have been able to arise along the classes and it will guide the students on the methods

the methods

EVALUATION

The acquired knowledge will also be evaluated by means of the realization of a written test. The test will consist of questions of true / false, multiple choice questions, conceptual questions and practical problems on elaboration of cosmetic preparations that will allow the student to demonstrate the grade of assimilation of the fundamental concepts.

To evaluate the laboratory practices, of obligatory attendance, he/she will have to surrender memory and analytic report with the results obtained in all the carried out practices. Also, during the last session of practical, he/she will be carried out an exam on questions tried during the realization of the same ones.

90 % of the global mark corresponds to theory activities evaluation and 10% to practical sessions examination.

When a student does not submit to the theory exam at the first regular call for the academic year but has been evaluated in any of the rest educational activities (laboratory practice, tutorials,...) the qualification report will be not attended. However, if in the second call, the student does not attend the theory exam, the qualification report will be failed, and the numerical will be calculated according to the percentages allocated to each of the activities carried out. In summary: in second call not attended will qualify only students who had not attended any of the activities integrating the subject.

REFERENCES

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- WILKINSON JB, MOORE RJ, Cosmetología de Harry. Diaz de Santos (1990)
- DRAELOS ZD., Cosméticos en dermatología, 1ª Ed. Acribia (1995)
- HERRÁEZ DOMINGUEZ M., DÍEZ-SALES O., Alternative methods to animal testing for cosmetic



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- SIMMONS, Cosméticos: formulación, preparación y aplicación. A. Madrid Vicente (2000).
- BONADEO I., Cosmética: Ciencia y Tecnología 1ª Ed. Ciencia 3 (1998)
- CORDERO A., Biología de la piel, 1ª Ed. Panamericana (1996).