POLI ESCOLA SUPERIOR SAÚDE TÉCNICO GUARDA	**SUBJECT DESCRIPTION**	**MODELO** PED.015.03

Course	**Pharmacy**					
Subject	**Galenic Pharmacy I**					
Academic year	2023/2024	*Curricular year*	2nd	*Study period*	1st semester	
Type of subject	Compulsory	*Student workload (H)*	Total: 135	Contact: T: 30; TP: 22,5; PL: 15	*ECTS*	5
Professor(s)	Filipa Alexandra Mascarenhas Melo Karolline Krambeck					
☐ *Area/Group Coordinator* ☒ *Head of Department*	André Ricardo Tomás dos Santos Araújo Pereira					

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

O1 – Understand and apply the concepts, notions, methods and terminology specific of the curricular unit;

O2 – Classify medicines according to different criteria;

O3 – Distinguish the different routes of administration and pharmaceutical forms used;

O4 - Know the different pharmaceutical operations;

O5 - Know the preparation methods of pharmaceutical forms obtained by mechanical division and mechanical extraction;

O6 - Understand the importance of the packaging material and the labeling of compounded medicines;

O7 - Use the information contained in pharmacopoeias and formularies in the preparation and control of compounded medicines;

O8 - Apply the Good Practices for the preparation of compounded medicines;

O9 - Understand how to pack and label pharmaceutical preparations, magisterial and officinal;

O10 - Know how to calculate the selling price of compounded medicines by the pharmacies.

2. PROGRAMME

1) General concepts in Galenic Pharmacy and Pharmaceutical Technology

2) Pharmacopoeias and Formularies

3) Medicine regulation and legislation applicable of compounded medicines

4) Administration of medicines

5) Basic pharmaceutical operations

6) Criteria for classification of pharmaceutical forms

7) Pharmaceutical forms obtained by mechanical division (powders; granules; tablets; capsules)

8) Coating of solid dosage forms

9) Dosage forms obtained by mechanical extraction

LABORATORIAL CONTENT

Preparation and quality control of single and compound powdered medicated papers.

Preparation and quality control of capsules

Preparation and quality control of granulates

Preparation and quality control of gums

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

With the study of the different syllabus contents, it is intended to attain the proposed objectives. The approach of different concepts and official documents and applicable legislation, as well as the administration and classification of pharmaceutical forms (points 1-6) allows achieving the objectives O1 to O4. The study of the different pharmaceutical forms obtained by mechanical division and their respective coatings and mechanical extraction (points 7-9) allows achieving the objectives O5 to O6.

In this curricular unit, the student's responsibility for handling equipment, instruments and laboratory materials is promoted, in the preparation of solid and dosage forms through the laboratory component, as well as the interest in autonomous learning, through continuous research in technical books and specialized journals, enabling the achievement of objectives O7 to O10.

4. MAIN BIBLIOGRAPHY

Prista, L.; Alves, A.; Morgado, R., Lobo J. (2003-2006). Tecnologia Farmacêutica. Fundação Calouste Gulbenkian. vols. I, II e II

Le Hir, A. (1997). Noções de Farmácia Galénica, Andrei, editora, Lda – tradução do original francês Pharmacie galénique

Pita, J. R. – Farmácia e Medicamento. Noções Gerais. Coimbra: Minerva, 1993

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Handbook of Pharmaceutical Excipients. (2009). London: The Royal Pharmaceutical Society of Great Britain and The American Pharmaceutical Association, sixth edition

Martindale: The Extra Pharmacopoeia. (2005). The Pharmaceutical Press, 35nd

Leyva, L.M.M., Gamiz, M.L.G. (2014). Formulación magistral. Prácticas de laboratorio, Ediciones Paraninfo

Farmacopeia portuguesa 9. (2008). INFARMED - Ministério da Saúde

Formulário Galénico Português (2005). CETMED. Associação Nacional das Farmácias

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The curricular unit has a theoretical, theoretical-practical and practical-laboratory evaluation. The theoretical and theoretical-practical evaluation has a weight of 75% and the practical-laboratory evaluation has a 25% weight in the final grade. The theoretical and theoretical-practical assessment includes continuous assessment during classes, in particular, participation in class and completion of the proposed work (10%) and the completion of two written tests (90%). The practical-laboratory assessment consists of the prior preparation of the protocols, the manipulation during the practical-laboratory classes, the preparation of the respective written reports and a practical assessment.

Approval in the curricular unit is achieved with a final grade equal to or greater than 9.5, on a scale of 0 to 20 and a minimum of 8 values for each of the assessment components.

The grade obtained in the theoretical-practical and practical-laboratory components will remain during the exam periods and it is only necessary that students take the theoretical component.

The improvement of the classification implies that all the theoretical syllabus contents are examined during the periods foreseen for this purpose.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The teaching methodologies are consistent with the objectives of the curricular unit. The theoretical classes with an expository methodology, which are intended to be always participatory, are the first approach to content in which students are encouraged to ask questions and reasoning based on the knowledge they acquire throughout the semester and are essential to achieve the objectives related to the knowledge and memorization of concepts. On the other hand, the theoretical-practical classes in which questions are resolved, practical cases about the knowledge acquired in the theoretical classes and analyzed sources of information allowed the knowledge of reference works for consultation in workshop pharmacy as well as a constant critical analysis by the student in problem solving are important to achieve the objectives related to the syllabus taught. The realization of protocols in practical-laboratory classes promotes the responsibility of students in handling equipment, instruments and laboratory materials and allows them to develop students' autonomy and consolidate objectives related to attitudes and behaviours.

7. ATTENDANCE

Attendance to 75% of theoretical-practical and practical-laboratory classes is mandatory. Students who do not comply with this frequency regime and who are not covered by a special statute fail and are not admitted to the final exam.

DATE

02 October 2023

SIGNATURES

Professor

Filipa Alexandra Mascarenhas Melo

(Filipa Alexandra Mascarenhas Melo)

Professor

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