

POLI ESCOLA SUPERIOR SAÚDE TÉCNICO GUARDA	SUBJECT DESCRIPTION	MODELO PED.015.03
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Course	Pharmacy					
Subject	Pharmacology II					
Academic year	2023/2024	Curricular year	2nd	Study period	1st semester	
Type of subject	Compulsory	Student workload (H)	Total: 108	Contact: 52,5	ECTS	4
Professor(s)	Márcio José de Abreu Marques Rodrigues					
<input type="checkbox"/> Area/Group Coordinator <input checked="" type="checkbox"/> Head of Department		Márcio José de Abreu Marques Rodrigues				

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

- O1. To stimulate the student's critical thinking in the area of pharmacology;*
- O2. Identify the drugs that act in each biological system and its mechanism of action;*
- O3. Identify adverse reactions to drugs and possible drug interactions;*
- O4. Identify the most adequate drug for each clinical situation;*
- O5. Analyze and discuss the action of drugs in the organism;*
- O6. Analyze and discuss published information about medicines*
- O7. Plan pharmacological interventions;*
- O8. Research scientific information, systematize it and develop autonomous work and group work.*

2. PROGRAMME

- C1. General principles of pharmacology;*
- C1. Autonomic nervous system;*
- C2. Pharmacology of the central nervous system;*
- C3. Pharmacology of pain and inflammation;*
- C4. Pharmacology of the cardiovascular system;*
- C4. Blood pharmacology;*
- C5. Respiratory pharmacology;*
- C6. Pharmacology of the digestive tract;*
- C7. Pharmacology of the endocrine system;*
- C8. Pharmacology of infectious processes;*
- C9. Anti-tumor chemotherapy and immunopharmacology.*

Syllabus of Practical and Laboratory (PL) classes

Development of practical exercises protocols with case demonstration.

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3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

The contents of the course (C1 to C9) allow the development of students' critical thinking in pharmacology (O1), and for each system under study or pharmacotherapeutic group (C2 to C9) it is developed the knowledge of the mechanism of action and main therapeutic indications of the drugs belonging to each group and their adverse reactions and potential drug interactions (O2 to O6) and develop skills for planning pharmacological interventions (O7). All contents allow the development of a scientific culture (O8).

4. MAIN BIBLIOGRAPHY

Rang, H.P. Dale, M.M., Ritter J.M., Moore, P.K. (2006); Rang and Dale's Pharmacology, 6ª ed, Elsevier. Osswald W., Guimarães, S. (2006). Terapêutica Medicamentosa e suas Bases Farmacológicas, 5ª ed, Porto Editora.

Laurence B, Goodman and Gilman's (2005). The Pharmaceutical Basis of Therapeutics, 15ª ed, McgrawHill Companies IN TL Division.

Koda-Kimble and Young's (2012). Applied Therapeutics: The Clinical Use of Drugs, Tenth Edition, Wolters Kluwer Health.

<https://www.infarmed.pt/web/infarmed>.

<http://www.ema.europa.eu/ema/>.

<http://www.fda.gov/>.

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The teaching methodologies are adapted to the different types of teaching envisaged for the CU, namely: (i) theoretical teaching, with masterly presentation of the contents and their systematization in an integrated way, stimulating students for interaction and discussion of the topics covered; (ii) theoretical-practical teaching, with resolution of practical exercises and analysis of scientific articles and official documents from INFARMED, EMA and FDA, related to the contents presented in theoretical classes, being privileged the interactive discussion with students and the critical spirit in the interpretation and analysis of information and, (iii) practical which consists in the demonstration of practical cases. The assessment consists of two frequencies (75%), assessment of a paper with oral presentation (15%) and continuous assessment of the practical work developed (10%). The approval of the curricular unit will be obtained with the final assessment of 9.5 values (10 values), in a scale of zero to twenty values (0-20).

Students having less than 9.5 in the final assessment or have less than 7.5 values in the final evaluation of some of the evaluation components and their compliance with the frequency scheme for theoretical-

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practical classes are admitted to the exam. The grade of the evaluation of the work presented will be left for the exam, keeping the ponderation of 15% of the final grade.

Students covered by special statutes who do not attend a sufficient number of classes to allow continuous assessment of their performance in the classroom will be evaluated only by written tests and work, with a weighting of 85% and 15% respectively.

The improvement of the classification implies an exam, at the examination period provided for this purpose, of all theoretical and theoretical-practical program content.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The theoretical classes consist of the masterly exposition of the course contents, systematizing the most relevant and current aspects, using audiovisual media. These classes allow the achievement of objectives related to cognitive ability and knowledge (O2 to O4). In theoretical-practical classes interactive discussion with students, exercise solving and analysis of articles, reports and other official documents from international entities are privileged, which allows the achievement of objectives related to research skills, analysis and synthesis of information and argumentative capacity (O1, O5 and O6). In practical classes, for integration and application of content, with demonstration of practical cases. These classes allow to achieve the objectives related to behavior, namely the intervention of the pharmacy technician in concrete situations (O7). As active learning activities, questions are posed to integrate the content presented, creating a space for debate and resolution of doubts. The recommended bibliography is complemented by suggestions for reading scientific articles adapted to each theme and program content. This approach allows the development of a scientific culture, developing research and investigation skills (O8).

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.

8. CONTACTS AND OFFICE HOURS

Márcio Rodrigues | marciorodrigues@ipg.pt | Office 4

Office hours – Tuesday: 15.00h-17.00h | Thursday: 14.00h-16.00h

<p>POLI</p> <p>ESCOLA SUPERIOR SAÚDE</p> <p>TÉCNICO</p> <p>GUARDA</p>	<p>SUBJECT DESCRIPTION</p>	<p>MODELO</p> <p>PED.015.03</p>
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DATE

02 March 2024

SIGNATURES

Professor and Head of Department

(Márcio José de Abreu Marques Rodrigues)