

Course Unit	Pharmacotherapy II	Field of study	-
Bachelor in	Pharmacy	School	School of Health
Academic Year	2023/2024	Year of study	3
Type	Semestral	Semester	1
Workload (hours)	108	Contact hours	T - TP 37,5 PL 15 TC - S - E - OT 7,5 O -
Level	1-3	ECTS credits	4.0
Code	9549-803-3104-00-23		

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Maria Angela Goncalves Rocha de Aragao

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Identify and characterize medicines according to the current pharmacotherapeutic classification of medicines;
2. Identify pharmacological actions, adverse reactions, interactions, precautions and medication dosage regimens;
3. Interpret therapeutic prescriptions;
4. Institute counseling procedures regarding the drugs, pathologies and symptoms studied

### Prerequisites

Before the course unit the learner is expected to be able to:  
Not applicable.

### Course contents

1. Medicines that act on the central nervous system;
2. Medicines with action on the vegetative nervous system;
3. Artificial nutrition;
4. Corrective blood volume and electrolyte changes;
5. Medicines for veterinary use.

### Course contents (extended version)

1. Medicines acting on the central nervous system:
  - 1.1. Anesthetics,
  - 1.2. Muscle relaxants,
  - 1.3. Drugs used in neurodegenerative diseases,
  - 1.4. Antiepileptics and anticonvulsants,
  - 1.5. Antiemetics and anti-vertigo medicines,
  - 1.6. CNS stimulants,
  - 1.7. Psychopharmaceuticals,
  - 1.8. Analgesics and antipyretics,
  - 1.9. Medicines used in migraine,
  - 1.10. Medicines for treatment of drug addiction.
2. Drugs acting on the vegetative nervous system:
  - 2.1. Sympathomimetics,
  - 2.2. Adrenergic blockers,
  - 2.3. Sympathoplegics,
  - 2.4. Parasympathomimetics and anticholinesterase's,
  - 2.5. Parasympatholytics
3. Nutrition:
  - 3.1. Enteral Nutrition,
  - 3.2. Parenteral Nutrition,
  - 3.3. Vitamins and Minerals,
  - 3.4. Metabolism.
4. Correctives for blood volume and electrolytes.
5. Veterinary medicines.

### Recommended reading

1. Guimarães, S. , Moura D. , Silva, P. S. (2014) Terapêutica medicamentosa e suas bases farmacológicas. (6ª ed). Porto: Porto Editora
2. Hardman, J. G. , Limbird L. E. , Gilman A. G. (2018). Goodman & Gilman-As Bases Farmacológicas da Terapêutica. (13ª ed). México: Mc Graw Hill
3. Rang, H. P. , Dale M. M. , Ritter J. M. , Flower R. J. , Henderson, G. (2016) RANG & DALE Farmacologia. (8ª ed). Rio de Janeiro: Elsevier
4. Walker, R. , Whittlesea, C. , Clinical pharmacy and therapeutics (2018), (6ª Ed) UK: Elsevier
5. www. infarmed. pt; www. dgs. pt; www. dgv. pt; http: //www. ema. europa. eu/ema/; https://www.fda.gov/; https://pubmed.ncbi.nlm.nih.gov/

### Teaching and learning methods

Theoretical-Practical Learning: Expositive method and participation of the students.

The practical component consists of the resolution and discussion of practical factsheets, study and presentation of topics related to subject matter and simulation of care situations.

### Assessment methods

1. Written exam (70%) + Practical Work (30% - (Regular, Student Worker) (Final)
  - Intermediate Written Test - 70% (The student must obtain at least 8,5 points in the average of the written intermediate tests.)
  - Practical Work - 30% (Practical sheets; Analysis of pharmacotherapeutic profiles; Research works; Simulations)
2. Final Written Exam (100%) - (Regular, Student Worker) (Supplementary)
3. Final Written Exam (100%) - (Regular, Student Worker) (Special)

### Language of instruction

1. Portuguese

**Language of instruction**

2. Portuguese, with additional English support for foreign students.

**Electronic validation**

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02-11-2023	02-11-2023	06-11-2023	06-11-2023