Medicine and Surgery degree course

Course: Pharmacology

SDS: BIO/14

Number of CFU: 8

Reference teacher: Prof. Silvia Consalvi

Names of Professors:
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PREREQUISITES

The teaching course of Pharmacology requires previously acquired knowledge of the following subjects: Chemistry and Biochemistry, Biology and Genetics, Histology and Embryology, Molecular Biology, Human Anatomy I and II, Physiology I and II, Microbiology, General Pathology.

LEARNING OBJECTIVES

The teaching course aims at the knowledge of the general principles of pharmacokinetics and pharmacodynamics; of how new drugs are developed, and related experimental clinical studies; of main classes of drugs, of their therapeutic uses and adverse effects.

LEARNING OUTCOMES

At the end of the learning process, the following results are expected, in line with the following "Dublin Descriptors“:

Knowledge and understanding

The student will have to demonstrate understanding of the information learned, in the field of general and special pharmacology

Applying knowledge and understanding

The student must be able to apply the acquired knowledge to the identification of the best therapeutic approach (based on Evidence Based Medicine), depending on the pathology and the variability of response to drugs.

Communication skills

The student will have to acquire a correct use of the names of the drugs and the technical terms related to the field of pharmacology, reporting the acquired knowledge with a clear exposition.

Making judgements

The student will be required to make general assessments regarding the covered topics.

Learning skills

The student will have to demonstrate the ability to link the acquired knowledge concerning the mechanisms of action of drugs to their therapeutic and side effects.

COURSE SYLLABUS

- Pharmacokinetics
- Pharmacodynamics
- Drugs development
- Pharmacogenomics
- Gender Pharmacology
- Autonomic nervous system drugs
- Central and peripheral nervous system drugs
- Drugs used to relieve pain, to treat inflammation and fever
- Drugs affecting the cardiovascular function

- Gastrointestinal pharmacology
- Drugs affecting the respiratory function
- Endocrine pharmacology
- Immunopharmacology
- Antimicrobial agents
- Anticancer agents

COURSE STRUCTURE

The teaching course is made of 80 hours of traditional frontal lessons. Teaching tools such as presentations organized in power-point files with explanatory diagrams, illustrations and images will be used. Attendance is mandatory.

COURSE GRADE DETERMINATION

The exam consists in a written exam with multiple-choice questions. A point will be assigned for each correct answer. No penalties for wrong answers will be assigned

In peculiar conditions (i.e. result of the written exams on the edge of sufficiency, or desire of the student to improve the mark taken at the written exam, etc) there will be an oral exam, following the written one, in which the student is given the opportunity to show his preparation discussing the course topics, and his elaboration skills on the thematics dealt demonstrating the acquisition of expressive capacity with a suitable scientific language.

The final exam grade will be calculated according to the following criteria:

Not suitable: Poor or lacking knowledge and understanding of the topics; limited capacity for analysis and synthesis, frequent generalizations of the requested contents; inability to use technical language.

18-20: Just sufficient knowledge and understanding of the topics, with obvious imperfections; just sufficient capacity for analysis, synthesis and autonomy of judgment; poor ability to use technical language.

21-23: Sufficient knowledge and understanding of the topics; sufficient ability to analyze and synthesize with the ability to reason

with logic and coherence the required contents; sufficient ability to use technical language.
24-26: Fair knowledge and understanding of the topics; discrete ability to analyze and synthesize with the ability to rigorously argue the required contents; good ability to use technical language
27-29: Good knowledge and understanding of the required contents; good ability to analyze and synthesize with the ability to rigorously argue the required contents; good ability to use technical language.
30-30L: Excellent level of knowledge and understanding of the required contents with an excellent ability to analyze and synthesize with the ability to argue the required contents in a rigorous, innovative and original way; excellent ability to use technical language.

OPTIONAL ACTIVITIES

In addition to the frontal teaching activity, students can be received by individual teachers by requesting an appointment via email.

READING MATERIALS

- Bertram G. Katzung. Basic and Clinical Pharmacology. 15th edition, 2021.
- Teaching material provided by the teacher during the lessons