UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Farmacology

2122-2-I0302D034

Aims

The course aims at providing students with the basic principles of general pharmacology, and the mechanisms of action of some of the major drugs (Pharmacology module) and the basic principles of resuscitation techniques (Anaesthesiology module).

Contents

Pharmacology

Learning of the basics of pharmacokinetic principles (fate of the drugs in the body) and pharmaco-dynamic (molecular targets of the drugs). Elements of drug-receptor interactions and variability of pharmacological responses; classification of adverse drug reactions. Learning of the mechanisms of action of the major classes of drugs.

Anesthesiology

Learning of the main states of cardiovascular, respiratory and neurological emergencies; learning of the basic principles and application of resuscitation techniques, and the mechanism of action of local and systemic anaesthetics.

Detailed program

Pharmacology

Introduction to General Pharmacology: Principles of Pharmacokinetics (fate in the body); Pharmacodynamics

(molecular targets of the drugs). drug-receptor interaction, variability to the drug response. Adverse drug reactions. Special pharmacology (principles of neurotransmission, catecholaminergic and cholinergic transmission, anti-inflammatory drugs and analgesics, antibiotics and antiseptics, cardiovascular drugs). Principles of toxicology.

Anesthesiology and First Aid

Causes and overview of shock states, acute respiratory failure, acute alteration of states of consciousness. Resuscitation Techniques and Basic First Aid Principles (alert the rescue system, implement first aid interventions, and acquire practical intervention skills). Mechanisms of local anesthetic actions, general anesthesia / sedo-analgesia.

Prerequisites

Knowledge of the introductory courses indicated in the regulation of the degree course.

Teaching form

Exercises in Italian language.

Textbook and teaching resource

Suggested text books: Cella, Di Giulio, Gorio, Scaglione, Farmacologia generale e speciale per le lauree sanitarie triennali, Ed. Piccin;

Ranieri, Mascia, Terragni, Urbino: Elementi di Anestesiologia e Terapia Intensiva, C. G. Eds Medico Scientifiche.

Teachers will provide educational material (slides of the lessons).

Semester

II year, II semester.

Assessment method

The written test will consist of a single task for the Pharmacology and Anesthesiology modules. 33 multiple choice questions (5 answers each, only one is correct) will be administered, divided proportionally to the credits: 22 on topics related to Pharmacology and 11 of Anesthesiology. For some multiple choise questions, a brief analysis could be required (like open question).

The oral test will focus on in-depth study of the written paper.

For the evaluation of the written and oral test, the following criteria will be taken into account:

- correct answers;
- answer relevance and completeness to the questions.

Office hours

On appointment