



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Pharmacology

2021-2-I0301D008

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#### Aims

The aim is to provide students with the theory and practice of chemical agents used in prevention, care and maintenance of oral hygiene of the patient.

#### Contents

The fundamental concepts of the principles of pharmacokinetics (fate of drugs in the body) and of pharmacodynamics (molecular targets of drugs); signs of drug-receptor interaction and pharmacological response variability; classification of adverse drug reactions. Mechanism of action of the main classes of drugs. Acquisition of the knowledge necessary to obtain a correct methodological and operational approach, to improve the oral health of patients through the association of chemical and mechanical treatments

#### 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.

Gingival problems: indication of gingivitis and parodontitis. The management of gingival problems through biological balance (pathogens control; host susceptibility ospite; biological balance). Pathogens control and main innovative solution related: mechanical instruments (toothbrushes, floss, interdentals), chemical instruments (toothpaste and mouthwash) > focus on Chlorhexidine, biological instruments > focus on oral probiotic.

## **Prerequisites**

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

## **Teaching form**

The lessons will be administrated with classroom teaching methods accompanied by iconografic material. The student will be required to actively discuss the proposed cases.

## **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. Edizioni Medico Scientifiche Wilkins Esther, La pratica clinica dell'igienista dentali, PICCIN

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 choice 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

During the lessons will be given in-course tests

## **Office hours**

On appointment

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