



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Pharmacology

2324-1-F0901D045

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#### Aims

The course aims to provide the student with knowledge relating to the therapy of the main pathologies and to deepen the critical reading of the scientific literature on pharmacological topics.

#### Contents

The main classes of drugs will be treated using a didactic approach based on scientific literature.

#### Detailed program

The course will cover the following topics:

- Drug development and pharmacovigilance
- Bibliographic search
- Drug-receptor interactions
- Pharmacokinetics
- Pharmacogenomics and personalized medicine
- Gender pharmacology
- Membrane receptors and intracellular receptors
- Voltage-gated ion channels, pumps and transporters
- Pharmacology of the cholinergic transmission
- Pharmacology of the catecholaminergic transmission (1)
- Pharmacology of the catecholaminergic transmission (2)
- Pharmacology of serotonergic and histaminergic transmission

- Pharmacology of GABAergic and glutamatergic transmissions
- Opioid and cannabinoid systems; pain therapy
- Anti-inflammatory drugs
- Anticoagulants, renin-angiotensin-aldosterone system, diuretics
- Insulins and oral hypoglycemic drugs
- Pharmacology of steroid hormones
- Antibiotics
- Antineoplastic drugs

## **Prerequisites**

Previous knowledge of the basic principles of chemistry, biochemistry, anatomy, physiology and pathology.

## **Teaching form**

Lectures and group work in English.

## **Textbook and teaching resource**

## **Semester**

Second semester

## **Assessment method**

Oral examination.

## **Office hours**

On appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY

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