
COURSE: Pharmacology and Toxicology

ACADEMIC YEAR: 2018-2019

TYPE OF EDUCATIONAL ACTIVITY: Characterizing

TEACHER: Dr. Vincenzo Brancaleone

e-mail: vincenzo.brancaleone@unibas.it

website:

<http://docenti.unibas.it/site/home/docente.html?m=009040>

phone: +39 0971 205082

mobile (optional):

Language: **Italian**

ECTS: **10 (lessons)**n. of hours: **80 (lessons)**Campus: **Potenza**Dept.: **Science**Program: **Pharmacy (LM-13)**Semester: **II**(from 01/03/2019 to
20/06/2019)

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

Knowledge and understanding: The course aims to provide specific skills on the pivotal principles of pharmacology and toxicology in antibiotic and chemotherapeutic treatment.

Ability to apply knowledge and competence: the acquired knowledge must be correctly applied in approach to therapeutic strategies.

Learning skills: the acquired knowledge represents the starting point for a further study on Pharmacology textbook, together with participation in initiatives (seminars) that can broaden the cognitive field and therapeutic care of the notions of pharmacology.

PRE-REQUIREMENTS

Knowledge of fundamentals about Anatomy, Physiology, Biochemistry and General Pharmacology is required.

SYLLABUS**GENERAL PHARMACOLOGY FUNDAMENTS (2 hours)****ANTIBIOTICS (24 hours)**

General principle in chemotherapy of infections. Nomenclature, spectrum, mechanism of action, therapeutic indications, side effects and adverse indications of antimicrobial drugs: Beta-lactam, Aminoglycosides, Quinolone, Macrolides, Lincosamide, Tetracycline, Chloramphenicol, Sulphonamide

OTHER DRUGS (14 hours)

Antituberculosis, Antimycotic, Antiviral drugs.

CANCEROGENESIS AND ANTINEOPLASTIC CHEMOTHERAPY (20 hours)

Cancer pathology principles. Tumorigenesis: transformation, progression and development. Cancerogenesis assays in vitro and in vivo. Anticancer drugs: alkylating agents, antimetabolites, hormones and hormonal modulators, antimithosis, cytotoxic agents, monoclonal antibodies.

GENERAL TOXICOLOGY (15 hours)

Aims of toxicology. Differences between diverse toxic agents. Main mechanisms by xenobiotics in cellular and organs toxicity. Adverse reactions in drug use. Interaction between drugs. Toxicity evaluation: experimental studies in animal models; lethality, acute subacute and chronic toxicity; toxicological assays in animal and human models

PRINCIPLES OF EXPERIMENTAL AND CLINICAL PHARMACOLOGY (5 hours)

Experimental pharmacology in animals. Clinical trial. Pharmacovigilance

TEACHING METHODS

The class consists of 80 hours of lessons.

EVALUATION METHODS

Evaluation will be assessed through oral examination. However, students who will attend the course will have the chance to pass the exam undergoing two intermediate tests. These will consist of multiple choice questions on restricted part of the program, followed by oral examination for the rest of the subjects.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

Goodman & Gilman,: *Le basi farmacologiche della terapia*, XI Ed. McGRAW, HILL
Katzung, *Farmacologia generale e clinica*, Ed. PICCIN
Paoletti, Nicosia, Clementi, Fumagalli, *Tossicologia generale e molecolare*, UTET
Lullmann, Mohr, Hein, Bieger, *Farmacologia per immagini*, Centro Scientifico Editore
Mannaioni, *Tossicologia medica*, UTET
Rang, Dale, Ritter, *Farmacologia*, Ed. AMBROSIANA

INTERACTION WITH STUDENTS

All info about the course and exam will be provided at the beginning of the course. Then, a list of attending students will be prepared. Professor will be officially available on Wednesday, from 2.00pm to 3.00pm at his room. However, student can contact professor anytime by email (**vincenzo.brancaleone@unibas.it**) or phone (**0971 205082**).

EXAMINATION SESSIONS (FORECAST)¹

Session I: 20 February, 13 March
Session II: 5-19 June, 3-17 July
Session III: 25 September, 23 October, 4 December

¹Session dates could be subject to variation that will be reported on ESSE3 system.

SEMINARS BY EXTERNAL EXPERTS YES NO

FURTHER INFORMATION
