



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche		
ACADEMIC YEAR	2022/2023		
MASTER'S DEGREE (MSC)	PHARMACY		
SUBJECT	GENERAL PHARMACOLOGY AND PHARMACOTHERAPY		
TYPE OF EDUCATIONAL ACTIVITY	B		
AMBIT	50322-Discipline Biologiche e Farmacologiche		
CODE	19173		
SCIENTIFIC SECTOR(S)	BIO/14		
HEAD PROFESSOR(S)	POMA PAOLA	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	10		
INDIVIDUAL STUDY (Hrs)	170		
COURSE ACTIVITY (Hrs)	80		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<b>POMA PAOLA</b> Wednesday 10:00 - 12:00 Studio Pt 35, Dip. STEBICEF, viale delle Scienze, Ed. 16, piano terra		

DOCENTE: Prof.ssa PAOLA POMA

<b>PREREQUISITES</b>	The student must have knowledge about general chemistry and biochemistry, physiology, anatomy and pathology.
<b>LEARNING OUTCOMES</b>	Knowledge and understanding of molecular mechanisms of different drugs classes and knowledge and understanding of molecular mechanisms of toxic substances. Knowledge of action mechanisms of principal drugs and their pharmacokinetic; ability to apply methodologies to study interactions drug-receptor. Ability to apply knowledge about therapeutic and toxic features of natural drugs and of environmental toxics. Independent judgement Ability to express judgement on the subjects of the course. Oral ability Ability to explain studies about drugs mechanisms and xenobiotics with correct language. Learning ability Autonomy to study and to refer to scientific publications.
<b>ASSESSMENT METHODS</b>	The student must answer to three questions about general pharmacology, special pharmacology and toxicology. The student must shown knowledge and understanding of subjects and explain with specific language to obtain passing grade. More so the knowledge is detailed, more the rating is positive. Evaluation is out of 30.
<b>EDUCATIONAL OBJECTIVES</b>	The aim of this course is to provide the students with knowledge about fundamental concepts of the main pharmacological classes, the basic concepts of pharmacokinetics and pharmacodynamics of principal drugs, features and mechanisms of toxic substances, adverse drug reactions; to provide the students notions about principal targets of toxic substances and to acquire methods to evaluate toxicological risk.
<b>TEACHING METHODS</b>	Frontal lessons
<b>SUGGESTED BIBLIOGRAPHY</b>	H.P. Rang, M.M. Dale, J. M. Ritter, R.- Flower. Farmacologia. 8a edizione, ISBN 978-88-214-4039-7. F. Clementi, G. Fumagalli. Farmacologia generale e molecolare. 5a edizione, ISBN 978-88-214-4436-4. Casarett & Doull. Elementi di tossicologia. Consigliata qualsiasi edizione del testo. Goodman & Gilman - Le Basi Farmacologiche della Terapia. 13a edizione, ISBN 978-88-088-2056-3.

## SYLLABUS

Hrs	Frontal teaching
2	pharmacology, aim of course. definition of drug
8	pharmacokinetic: drugs administration, absorption distribution metabolism and elimination. variability of drug response
4	Receptors, dose-response curve, drug-receptor interaction, receptor binding study, potency and efficacy, agonist and antagonist.
2	pharmacogenetics
2	drug development and pharmacovigilance
10	anti-inflammatory drugs, immunosuppressants, pulmonary pharmacology, hematopoietic agents.
8	antimicrobial drugs
4	anticancer drugs
4	biotech drugs
8	Cardiovascular system drugs: treatment of hypertension, heart failure, ischemia and anti-arrhythmic drugs. Anticoagulant, fibrinolytic and antiplatelet drugs. Drug therapy for hypercholesterolemia and dyslipidemia.
4	digestive system drugs
4	Hormones and hormone antagonists: anti-tyroid drugs, pharmacotherapy of diabetes mellitus and hypoglycemia.
12	drugs classes acting on nervous system
8	brief focus on special pharmacology