

General Information	
Academic subject	PHARMACOLOGY AND PHARMACOTHERAPY 2
Degree course	PHARMACY
ECTS credits	12
Compulsory attendance	YES
Language	ITALIAN
Academic year	2020-2021

Subject teacher		
Course A-E	Name Surname	Role
	Antonietta Mele/Paola Mantuano	RTI/Rtda
	Mail address	Telephone number
	antonietta.mele@uniba.it paola.mantuano@uniba.it	080 5442737
Course F-N	Name Surname	Role
	Annamaria De Luca/Ornella Cappellari	PO/Rtdb
	Mail address	Telephone number
	annamaria.deluca@uniba.it ornella.cappellari@uniba.it	080 5442801
Course O-Z	Name Surname	Role
	Giulia Maria Camerino	PA
	Mail address	Telephone number
	giuliamaria.camerino@uniba.it	

ECTS credits details			
Basic teaching activities	Area	SSD	CFU/ETCS
	05	BIO/14	12

Class schedule	
Period	I semester
Year	IV
Type of class	Lectures and classroom exercises

Time management	
Hours	300
In-class study hours	120
Out-of-class study hours	180

Academic calendar	
Class begins	10/05/2020
Class ends	01/22/2021

Syllabus	
Prerequisites/requirements	Basic knowledge of physiology, biochemistry and general pharmacology
Expected learning outcomes	<i>Knowledge and understanding on:</i> <ul style="list-style-type: none"> ○ Knowledge of drugs mechanism of action ○ Knowledge of side effects and contraindications of drugs; drugs interaction ○ Knowledge of the main pharmacokinetic characteristics of drugs



	<p><i>Applying knowledge and understanding on:</i></p> <ul style="list-style-type: none">○ Knowledge of the clinical uses of the main categories of drugs <p><i>Making informed judgments and choices:</i></p> <ul style="list-style-type: none">○ Ability to associate each drug with a specific therapy <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none">○ Use of appropriate language for the correct description of drugs <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none">○ Reading in English of scientific papers introduced by the professor and described during lectures
Contents	<p>DRUGS OF GLUCIDIC DISMETABOLISM: Pharmacological bases of glycemic control. Pharmacodynamics, pharmacokinetics, side effects and contraindications of insulin and hypoglycemic agents. Hypoglycemia. treatment.</p> <p>VITAMINS: Disvitaminosis and pharmacological aspects of vitamins.</p> <p>ENDOCRINE SYSTEM PHARMACOLOGY: Hypothalamus-pituitary axis drugs. Growth hormone and secretagogues. Thyroid, calcium, and bone metabolism drugs.</p> <p>PHARMACOLOGICAL CONTROL OF PAIN: Pharmacological basis of nociceptive and neuropathic pain. Analgesic therapy with: non-steroidal anti-inflammatory drugs (NSAIDs), morphine and opioids, adjuvant drugs, cannabinoids.</p> <p>ANTI-INFLAMMATORY AND IMMUNOSOPRESSION THERAPY: Mediators of the inflammatory, allergic and immune reaction; Pharmacodynamics, pharmacokinetics, side effects and contraindications of NSAIDs; glucocorticoids; lipoxygenase inhibitors and leukotriene receptor antagonists; immunosuppressive drugs; anti-cytokine drugs.</p> <p>ANTIMICROBIAL CHEMOTHERAPY AND ANTI-CANCER THERAPY: Principles of chemotherapy: targets of chemotherapy; therapeutic index; exclusive, selective, and shared targets; treatment modalities: bacteriostatic or bactericidal drug (MIC, MBC), Log cell kill, combined pharmacotherapy; bacterial and tumour drug resistance. Pharmacodynamics, pharmacokinetics, side effects and contraindications of antimicrobial chemotherapy drugs: antifolate drugs; topoisomerase inhibitors; protein synthesis inhibitors; bacterial cell wall inhibitors; antifungals; antivirals with specific attention to drugs proposed for the treatment of Sars-CoV-2 and to drugs under investigation; antiprotozoans with specific attention to anti-malarial drugs; anti-helminths. Pharmacodynamics, pharmacokinetics, side effects and contraindications of anti-neoplastic drugs: antinucleotides; anti-mitotics; protein synthesis modulators; target therapy: monoclonal antibodies and kinase inhibitors; hormone therapy; immunotherapy.</p> <p>VACCINES: history, advantages and limitations</p>
Course program	
Bibliography	- 1. FARMACOLOGIA PRINCIPI DI BASE E APPLICAZIONI TERAPEUTICHE: F. ROSSI, V. CUOMO, C. RICCARDI (EDIZIONI MINERVA MEDICA)



	2. FARMACOLOGIA: RANG, DALE, RITTER (CASA EDITRICE Edra Masson) 3. LE BASI FARMACOLOGICHE DELLA TERAPIA: GOODMAN & GILMAN (MCGRAWHILL)
Notes	None
Teaching methods	Lectures and exercises aided by slides provided by the teacher
Assessment methods	Oral exam on the topics covered by the course
Evaluation criteria	<ul style="list-style-type: none">• <i>Knowledge and understanding</i><ul style="list-style-type: none">○ Ability to recognize the drug therapeutic applications○ Knowledge of the drug's mechanism of action with a description of the molecular mechanisms responsible for the tissue and system effects○ Knowledge of the main pharmacokinetic characteristics of the drug (method of administration, dosage range, metabolism and elimination)○ Knowledge of the main side effects and contraindications• <i>Applying knowledge and understanding</i><ul style="list-style-type: none">○ Ability to contextualize the knowledge on the drug to the knowledge acquired throughout the entire course of study• <i>Autonomy of judgment</i>• Ability to recognize the correct use of drugs within the therapeutic categories• <i>Communicating knowledge and understanding</i><ul style="list-style-type: none">○ Clarity of presentation and use of appropriate terminology• <i>Communication skills</i><ul style="list-style-type: none">○ Ability to argue and space on the various topics of the course and on the basis of the knowledge acquired in previous courses <p style="text-align: right;"><i>Capacities to continue learning</i></p>
Further information	