



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro"		
ACADEMIC YEAR	2020/2021		
BACHELOR'S DEGREE (BSC)	NURSING		
INTEGRATED COURSE	PHARMACOLOGY, ONCOLOGY AND PALLIATIVE CARE - INTEGRATED COURSE		
CODE	20315		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	MED/06, BIO/14		
HEAD PROFESSOR(S)	CANNIZZARO CARLA	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	CANNIZZARO CARLA	Professore Ordinario	Univ. di PALERMO
	BADALAMENTI GIUSEPPE	Professore Associato	Univ. di PALERMO
CREDITS	6		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<b>BADALAMENTI GIUSEPPE</b> Tuesday 14:00 15:30 UOC di Oncologia Medica  <b>CANNIZZARO CARLA</b> Thursday 11:00 13:00 Farmacologia, Edificio 11d - AOUP Paolo Giaccone, Via del Vespro 129 Palermo Friday 10:00 12:00 Farmacologia, Edificio 11d - AOUP Paolo Giaccone, Via del Vespro 129 Palermo		

DOCENTE: Prof.ssa CARLA CANNIZZARO

PREREQUISITES	Anatomy Biology/Genetics, Biochemistry, Physiology, Pathology
LEARNING OUTCOMES	<p>Educational goals and expected learning outcomes:</p> <p>Knowledge and ability 'to understand: through the acquisition of analysis, study and research tools to the understanding of biologically and therapeutically active molecules and of the rationale of medications. Understand the conditions requiring a nurse-concerned specific pharmacological intervention, together with a special attention to the evaluation of the psycho-physic state of oncologic patients.</p> <p>Capacity 'to apply knowledge and understanding: develop abilities in order to think, understand and defend arguments on the basis of the acquisition during the Course of the principles underlying drug therapy, with special concern about the pharmacokinetic properties, the mechanisms of action and the conditions of the patient. Be able to interact with the patient and his relatives on the basis of the patient needs and the pharmacotherapy offered. At the end of the Course the Students should be able to transform their theoretical principles into pragmatic choices, integrating and metabolizing the knowledge to reach the best clinical management of the patients</p> <p>Autonomy of judgment: acquisition of a dynamic and "analytical" evaluation of the proposed guidelines and scientific studies related to the therapeutic / toxicological properties of the drugs. Be able to collect and employ clinical data and pharmacologic cues in order to evaluate the putative nurse's implications and adjust the therapeutical choices to the psychophysics condition of the patients.</p> <p>Communication skills: develop a scientific language, with the tools useful to the understanding of methods and texts for Nurses. Acquire interactive abilities in order to undergo a dialogue with patients and clinicians and strengthen the management of the patients. Develop a scientific language pattern to be able to argue both with the teacher and with an audience of non-experts.</p> <p>Learning skills: develop upgrade skills by consulting the scientific publications in the pharmacological sciences field. Develop ability in using informative tools to update their professional education in harmony with the medical team. Show to detect means to solve healthcare emergency.</p>
ASSESSMENT METHODS	<p>Written and/or oral examination; the grades are on a scale of 30</p> <p>There might be a written test of the duration of 60 minutes including 13 questions with multiple choices (a-d) and 2 open questions. Each multiple choice question will be valued +2 (exact); -0,50 (wrong) or 0 (lack) while each open question will receive a score from 0 to 2 with 2 the highest score and 0 the lowest score. The summation of the results will be the final mark including lode. The test could be followed by an oral examination usually lasting 10 minutes. As an alternative an oral exam will be carried out covering the program. The questions tend to verify a) the knowledge gained, and b) the ability of elaborative and synthesis skills. As for the assessment of knowledge, it will be required the ability to contextualize the topic within a specific situation. As for the verification of the elaborative abilities, the following criteria will be verified: Analysis; Investigation; Critical thinking; Communication; The evaluation scheme is the following: 30-30 e</p> <p>Lode: A-A+ Excellent: more than good acquisition of the course content and excellent language abilities and synthesis abilities 27-29: B Very good: very good knowledge of the issues and good language abilities; the student is very able to correlate the different topics which has studied 24-26: C Good: good knowledge of the issues and good language abilities; the student is able to correlate the different topics which has studied 21-23: D Satisfactory: just enough knowledge of the subject, and limited language 18-20: E Sufficient :minimum basic knowledge of the subject requested and poor elaborative capacity 1-17: F Fail: insufficient knowledge of the contents required by the specific question or the student does not answer</p>
TEACHING METHODS	Taught Lessons

## MODULE ONCOLOGY AND PALLIATIVE CARE

*Prof. GIUSEPPE BADALAMENTI*

### SUGGESTED BIBLIOGRAPHY

Practical Medical Oncology Textbook (Editors Antonio Russo, Marc Peeters, Lorena Incorvaia, Christian Rolfo), Springer Nature New York, in press  
De Vita, Hellman, and Rosenberg's Cancer  
Materiale didattico fornito dal Docente, Teaching materials

<b>AMBIT</b>	10313-Interdisciplinari e cliniche
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

At the end of the course the student will be able to know the epidemiology of the main neoplasms, including biological, molecular factors, the main risk factors and prognostic factors related to solid neoplasms. He will be able to know the mechanisms of action of antiproliferative drugs, of new immune drugs and targeted therapy, their indications, their effectiveness, the main side effects and the evaluation of the therapeutic response.  
He will also have knowledge of the pain symptom in oncology and the main strategies for palliative care of the neoplastic patient.

## SYLLABUS

Hrs	Frontal teaching
6	Epidemiology and screening of the most frequent cancers, the natural history of cancer
6	Treatment planning and multidisciplinary approach (tumor staging, therapeutic response evaluation)
6	Targeted Therapies and other class of oncology drugs
6	Breast cancers, ovarian cancers, lung cancers, colorectal cancers, urogenital cancers and melanoma
6	Management of pain, respiratory and gastrointestinal symptoms in patients with advanced or terminal tumors

## MODULE PHARMACOLOGY

*Prof.ssa CARLA CANNIZZARO*

### SUGGESTED BIBLIOGRAPHY

The Manual of the Pharmacological Basis of THERAPEUTICS. Goodman & Gilman's.  
Ed. Mc Graw Hill

<b>AMBIT</b>	10305-Primo soccorso
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<b>INDIVIDUAL STUDY (Hrs)</b>	45
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<b>COURSE ACTIVITY (Hrs)</b>	30
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### EDUCATIONAL OBJECTIVES OF THE MODULE

The course in Pharmacology aims at providing the proper tools and stimulating the interest towards Pharmacology, in particular towards the pharmacokinetic properties, mechanisms of action, therapeutic indications, adverse drug reactions and interaction of the diverse classes of medications that will be used by the Students in Nursing. The learning process will be implemented by curiosity, commitment and critical approach. The acquisition of a dynamic knowledge of the main molecules already in use and of the new and effective therapeutic strategies will be achieved by active participation to the lessons and will be certified through the final evaluation by the examining Commission.

## SYLLABUS

Hrs	Frontal teaching
2	Introduction to general pharmacology. Anatomical-physio-pathological references. Cellular bases of pharmacokinetics. Absorption and routes of drug administration. Distribution and elimination of drugs. Drug metabolism. Control of plasma drug concentration. Drug interactions. Pharmacogenetics.
2	Pharmacodynamics. Drug-receptor interactions and quantitative drug response. Receptors and modulation of receptor responses. Mechanisms of tolerance and drug dependence. Channel receptors. G protein-coupled receptors. Regulation of intracellular calcium homeostasis. Receptors for growth factors. Cytokines: receptors and functions. Intracellular receptors. Ionic channels (sodium, calcium and potassium channels). Pumps and carriers. Neurotransporters.
2	The Central Nervous System. Synapses and the secretion of neurotransmitters. Catecholaminergic, cholinergic, serotonergic, histaminergic, gabaergic transmissions. Neurotransmission mediated by excitatory amino acids. Endocannabinoids.
8	Drugs active on the Central Nervous System. Sedative Hypnotics and Alcohols (Benzodiazepines, Barbiturates, Ethanol). Opioid analgesics. General anesthetics. Local anesthetics. Antipsychotics. Therapy of seizures; Parkinson's Disease. Drugs of abuse
6	Active drugs on the cardiovascular system: Antianginal (Nitro-derivates, Beta-Blockers, Calcium-Antagonists); Antiarrhythmics (Sodium Channel Blockers, Beta-Blockers, Calcium Channel Blockers); Treatment of Heart Failure (Digitalis Glucosides, Dopaminergic and Beta-Adrenergic Agonists, Phosphodiesterase Inhibitors) Antihypertensive Drugs (ACE inhibitors, Angiotensin II Antagonists, Nitroderivatives, Vasodilators, Loop Diuretics, Beta-blockers Calcium Antagonists, Sartans). Pharmacology of haemostatic disorders.
6	Autocoid drugs and mediators of inflammation: Histamine and Bradykinin, Eicosanoids, Non-Steroidal Anti-inflammatory Drugs (NSAIDs). FAS. Metabolism active drugs: Antidiabetic, Hyperglycemic agents Statins. Drugs active on the digestive tract: Treatment of peptic ulcer and gastroesophageal reflux. Antidiarrhoeals. Antiemetic with central and peripheral activity.
4	Chemoantibiotic therapy: Betalactamine. Macrolides, Ketolides, Lincosamides, Streptogramins and Oxazolidones. Aminoglycoside, Chloramphenicol and Tetracycline. Sulfonamides, Diaminopirimidine and Quinolones. Antimycobacterial drugs, Antivirals, Antifungals, Antiprotozoans, Anthelmintics