UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza “G. D’Alessandro”		
ACADEMIC YEAR	2021/2022		
BACHELOR'S DEGREE (BSC)	NURSING		
INTEGRATED COURSE	IMTERNAL MEDICINE, GASTROENTEROLOGY AND PHARMACOLOGY - INTEGRATED COURSE		
CODE	21846		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/09, BIO/14, MED/12		
HEAD PROFESSOR(S)	CALVARUSO VINCENZA	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	CASTELLI VALENTINA	Professore a contratto	Univ. di PALERMO
	GIAMMANCO ANTONINA	Ricercatore a tempo determinato	Univ. di PALERMO
	CALVARUSO VINCENZA	Professore Associato	Univ. di PALERMO
CREDITS	9		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	**CALVARUSO VINCENZA** Monday 14:00 16:00 Sezione di Gastroenterologia, Clinica Medica I, Piazza delle Cliniche n.2. **CASTELLI VALENTINA** Monday 10:00 14:00 Farmacologia - Edificio 11, Ingresso 11d - Policlinico Universitario Paolo Giaccone **GIAMMANCO ANTONINA** Tuesday 11:00 12:00		

DOCENTE: Prof.ssa VINCENZA CALVARUSO

PREREQUISITES	Attendance of the course of human anatomy and physiology
LEARNING OUTCOMES	Knowledge and ability of comprehension Acquisition of basic concepts of internal medicine, gastroenterology and pharmacology. Ability to apply knowledge and comprehension Ability to build pathways of analysis between human pathologies and pharmacological approaches. Autonomy of judgment Knowledge of the theoretical and practical connections between the mechanisms of disease and the clinical manifestations of diseases and the pharmacological therapies. Ability of communication Synthesis and exposure skills related to the main topics of the course Ability of learning Ability to follow interdisciplinary pathways and correlation between etiology, pathogenesis and clinical presentation of acute and chronic diseases.
ASSESSMENT METHODS	The oral examination whose purpose is to verify due competences and the ability of personal synthesis concerning the program. The assessment is given in numbers (from 18 to 30). Students will have to answer orally at least three questions concerning the program and the texts suggested during lectures. Questions asked verify: a) acquired competences; b) ability of elaboration; c) the acquisition of adequate abilities of presentation; d) personal autonomy of judgment. Distribution of marks. 30 – 30 cum laude: a) advanced knowledge concerning suggested topics and deep comprehension of the principles relative to the subjects studied b) advanced ability of application of acquired knowledge and full mastery of the most effective instruments to conceive a cultural analysis based on particular theoretical orientations c) correct use of the specific subjects relative to the discipline d) excellent ability to organize, in an autonomous and innovative way, topics relative to the discipline 26 – 29: a) exhaustive and complete knowledge associated to a critical awareness b) good ability of application concerning acquired knowledge and good level of competence concerning the most effective instruments suited to make a cultural analysis on the basis of some theoretical orientations c) good competence of the specific orientations and disciplinary languages d) ability of organization due topics in an autonomous and innovative way 22 – 25: a) knowledge of facts, principles and general concepts concerning the program b) more than basic ability of application concerning methods and instruments relative to the studied subjects c) more than basic competence of the specific orientations and disciplinary languages d) more than basic ability of organization relative to due topics 18 – 21: a) sufficient knowledge of the main topics concerning the program to study b) sufficient capacity of application of the studied subjects c) sufficient competence of the general orientations and disciplinary languages d) sufficient ability of organization relative to due topics
TEACHING METHODS	Frontal lectures and interactive discussion with the students

MODULE
INTERNAL MEDICINE

Prof.ssa ANTONINA GIAMMANCO

SUGGESTED BIBLIOGRAPHY

Massini et al., Medicina Interna (VI ed.), 2019, McGraw-Hill Education (ISBN 978-8838694660)
Claudio Rugarli; Medicina Interna sistematica, Editrice Masson
Ricerche bibliografiche consigliate dal Docente

AMBIT	10313-Interdisciplinari e cliniche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge and understanding: The aim of the module is the student's knowledge of taxonomy, epidemiology, etiopathogenesis, natural history, differential diagnosis, clinical phenomenology and therapeutic management of the most frequent acute and chronic pathologies of IInternal Medicine.
The Student must acquire the clinical diagnostic and prognostic significance of some laboratory and instrumental investigations of specific performance in the management of some' clinical internistic entities (EGA, Spirometry, diagnostic and therapeutic paracentesis, thoracentesis, coagulation tests, radiological diagnostics, etc.).
Ability to apply knowledge and understanding: the Student, at the end of the course, thanks to the above acquisitions, will have to be able to correctly apply the information for a correct differential diagnosis between diseases with common signs and symptoms, to indicate to reach diagnosis a conscious choice of the various diagnostic methods and to apply the right therapeutic choices for a correct management of the patient.
Ability to apply knowledge and understanding: the Student, at the end of the course, thanks to the above acquisitions, must' be able to properly apply the information for a diagnosis of the major properly complications in Internal Medicine and their management. The verification will be carried out with a final oral exam.

SYLLABUS

Hrs	Frontal teaching
4	Respiratoryaooaratus -dyspnoea and cyanosis: pathophysiology and clinical - acute and chronic, partial and global respiratory failure -pneumonia, bronchial asthma, chronic bronchitis and its sequelae;
4	Cardiovascular apparatus pathophysiology of the heart; primary and secondary arterial hypertension; heart failure; pulmonary embolism
4	Endocrine-metabolic apparatus -diabetes mellitus and its complications, thyroid diseases, surrenal diseases -obesity and its complications, the metabolic syndrome
4	Nephrology -Glomerulo-nephritis, Acute and chronic renal failure, Urinary tract infections
2	Electrolyte disorders. disorders of Acid-Base Balance
4	Hematology - Anemias, leukemias and lymphomas
2	Autoimmune pathology Autoimmune concepts; LES, rheumatoid arthritis
4	Fever of unknown origin (FUO). Low-grade fever. Infectious diseases: Brucellosis, Salmonellosis, Rickettiosis, Mononucleosis, leishmaniasis,
2	Various - Drug induced reactions, excessive and incorrect use of drugs.

MODULE
PHARMACOLOGY

Prof.ssa VALENTINA CASTELLI

SUGGESTED BIBLIOGRAPHY	
The Manual of the Pharmacological Basis of THERAPEUTICS. Goodman & Gilman's. Ed. Mc Graw Hill Fumagalli, Clementi Farmacologia Generale e Molecolare, UTET	
AMBIT	10305-Primo soccorso
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30
EDUCATIONAL OBJECTIVES OF THE MODULE	
The course in Pharmacology aims at stimulating the interest towards the 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.
4	The Central Nervous System. Synapses and the secretion of neurotransmitters. Catecholaminergic, cholinergic, serotonergic, histaminergic, gabaergic transmissions. Neurotransmission mediated by excitatory amino acids. The opioidergic system. Cannabinoids. Neuropeptides of endocrine relevance. Pharmacology of nitric oxide. Arachidonic acid cascade.
6	Drugs active on the Central Nervous System. Sedative Hypnotics and Alcohols (Benzodiazepines, Barbiturates, Ethanol). Opioid analgesics. General anesthetics. Local anesthetics (Esters, Amides, Ethers, Ketones).
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). Metabolism active drugs: Antidiabetic, Hyperglycemic agents Statins. Gout therapy, obesity and eating disorders. Bone Metabolism 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

MODULE
DIGESTIVE SYSTEM DISEASES AND NUTRITION PATHOLOGIES

Prof.ssa VINCENZA CALVARUSO

SUGGESTED BIBLIOGRAPHY	
Manuale di Gastroenterologia UNIGASTRO ed. 2015-2017	
AMBIT	10727-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide students with:
-knowledge of the main gastroenterological diseases,
-the correlation between nutrition, food behaviors and gastroenterological diseases;
-knowledge to establish a good relationship with patients suffering from gastroenterological diseases;
-the ability to interact with other professional figures (physicians, nurses, pharmacists) participating in the management of patient health.

The student must acquire knowledge about:
- etiopathogenetic mechanisms that determine acute and chronic digestive diseases and their natural history;
- interpretation of the patient's symptoms and the ability to discuss with other health figures;
- diagnostic processes and therapies of major gastrointestinal diseases.
- Relationship with the patient in order to evaluate the difficulties of eating in chronic gastrointestinal diseases, and to be able to recommend correct and useful food regimens for acute and chronic diseases.
- planning and management of parenteral and / or enteral diet for patients with digestive disorders with severe clinical onset or end stage diseases

SYLLABUS

Hrs	Frontal teaching
4	Basic mechanismis of normal and abnormal gastrointestinal function: motility, secrection and absorbiption, nutrition
2	Evidence based approach to common gastrointestinal problems
2	The functional and inflammatory diseases of the esophagus, stomach and duodenum (Gastroesophageal reflux, acute and chronic gastritis, acute duodenitis).
2	Celiac disease (intestinal and extra-intestinal symptoms and signs, non-invasive diagnosis)
2	The inflammatory bowel disease: symptoms, diagnosis and complications.
2	Intestinal Tumors
2	Celiac disease: indications for the diet and its complications
2	Irritable bowel syndrome
2	General criteria of therapy of digestive and liver diseases
2	Nutritional bases and dietary programs to prevent and cure gastroenterological diseases
2	The pathophysiological bases of artificial nutrition and the main indications in gastrointestinal diseases
2	Indication and management of parenteral nutrition in gastroenterological diseases
2	Indication and management of enteral nutrition in adult and child

Hrs	Practice
2	Case reports and discussion