

Course Title	Pharmacology I				
Course Code	MD310				
Course Type	Compulsory				
Level	1 st Cycle (MD)				
Year / Semester	3 rd year / 5 th semester				
Teacher's Name	TBA				
ECTS	6	Lectures / week	3 hrs / 14 weeks	Laboratories / week	3 hrs / 14 weeks
Course Purpose and Objectives	<p>The course is intended to familiarize the students with the basic pharmacological concepts and provide the basic pharmacology of specific systems. The objective of this course is to enhance the students' knowledge regarding the detailed pharmacological agents needed to treat disease. The course aims at allowing students to progress to more advanced medical courses such as Internal Medicine and the various medical specialties. The objective of the course is to familiarize students with</p> <p style="padding-left: 40px;">The pharmacology of the different bodily systems, along with general principles of:</p> <ul style="list-style-type: none"> ○ Pharmacokinetics and pharmacodynamics ○ Neuropharmacology and neuropsychopharmacology ○ Gastrointestinal pharmacology ○ Rheumatology, acute and chronic pain management ○ Anesthesia ○ Therapy of autoimmune diseases ○ Pharmacology of Infectious diseases ○ Neoplastic disease and cancer chemotherapy 				
Learning Outcomes	<p>Upon successful completion of the course the students will be able to:</p> <ul style="list-style-type: none"> • Discuss pharmacokinetic principles such as drug absorption, distribution, metabolism and secretion • Discuss concepts of drug-receptor interactions and pharmacodynamics such as dose-response and receptor-effector coupling • Discuss agonists and antagonists of the nervous system (cholinergic and adrenergic) as a focus of drug-receptor interactions • Summarize concepts in neuropharmacology including basic mechanisms of neurotransmission and drugs used in neurodegenerative diseases • Discuss gastrointestinal pharmacology in the control of gastric acidity, peptic ulcers and gastroesophageal disease (e.g. 				

	<p>histamine H2 receptor antagonists, proton pump inhibitors, antacids)</p> <ul style="list-style-type: none"> • Discuss inflammatory bowel disease, gall stone and pancreatitis pharmacotherapy • Describe the anti-inflammatory and antirheumatic drugs (prostaglandins, non-steroidal anti-inflammatory drugs, COX-2 inhibitors, TNFα inhibitors, interleukin receptor antagonists, methotrexate). Summarize concepts of curative vs. disease-modifying therapeutics. • Understand the complexities of cancer chemotherapy (antimetabolites, cytotoxic and alkylating agents, hormones and hormone antagonists). Discuss pathway-targeting therapy and developments in drug delivery (nanoparticles, monoclonal antibodies, small interfering RNAs, kinase inhibitors) • Discuss chemotherapy of infectious diseases (e.g. antimycobacterials and antivirals, cell wall and protein synthesis inhibitors, quinolones, folic acid antagonists, and urinary tract antiseptics, respiratory system, therapeutics against HIV, HHV-1, HHV-2, HHV-5, etc) 		
Prerequisites	None	Co-requisites	None
Course Content	<ul style="list-style-type: none"> • The nervous system • Gastrointestinal diseases – peptic, liver, biliary and pancreatic diseases • Clinical Immunology and microbiology • Rheumatology and pain management • Anesthesia • Infectious diseases • Cancer 		
Teaching Methodology	Instructor-led lectures, instructor-supported group exercises and case studies		
Bibliography	<p>Required textbook: Pharmacology, Richard Harvey, Lippincott's Illustrated Reviews</p> <p>Suggested supporting textbook: Goodman & Gilman's: The Pharmacological Basis of Therapeutics,</p>		
Assessment	Examinations:	70%	
	Assignment/Lab	20%	
	Class Participation:	10%	
Language	English		