


		UNIVERSITY OF EAST SARAJEVO						
		Faculty of Medicine						
		Study program: medicine						
		Integrated academic studies		III study year				
Full subject title		GENERAL PHARMACOLOGY						
Department		Department of Pharmacology, toxicology and clinical pharmacology, Faculty of Medicine in Foča						
Subject code			Subject status		Semester		ECTS	
ME-02-1-027-6			compulsory		VI		3	
Professor/ -s		Professor Dragana Sokolovic ; professor Dragana Drakul						
Associate/ - s		Assist. Milica Radanovic						
Number of lectures/ teaching workload (per week)			Individual student workload (in hours per semester)			Coefficient of student workload S ₀ ¹		
L	E	SP	L	E	SP	L		
1	2	0	1*15*1	2*15*1	0*15*1	1		
total teaching workload (in hours, per semester) 1*15 + 2*15 + 0*15 = 45			total teaching workload (in hours, per semester) 1*15*1 + 2*15*1 + 0*15*1 = 45					
Total subject workload (teaching + student): 45 + 45 = 90 hours								
Learning outcomes		By mastering the course Pharmacology with Toxicology, which in the third year of studies (VI semester), the student will be able to acquire: 1. Basic information about medicines (origin, structure, etc.), drug interaction with living organism and possibilities for their practical application, but also to get acquainted with basic drug groups and their characteristics. In addition, more important goals of teaching include: 2. Mechanisms of the effect of drugs, the pharmacological effects of drugs and the fate of drugs in the organism (pharmacokinetics) and the possible pharmacokinetic drug interactions; 3. Basic elements of the use of drugs in rational therapy, as well as knowledge of therapeutic and undesirable pharmacological effects of drugs that will allow future doctors of medicine to apply drugs properly.						
General competences		They possess broad fundamentals of theoretical knowledge and practical skills, preparing them for any type of postgraduate education as well as for collaboration with other medical professionals. They have adopted attitudes concerning medical ethics. They are prepared for further development and advances within the field of medicine. They are capable of making appropriate therapeutic decisions. They are acquainted with methodology of scientific research. They are capable of acting in accordance with rational and scientific concepts and principles.						
Preconditions		Passed exams from the second year of study in order to listen to the course, as well as pathology and pathophysiology from the third year must be satisfied in order to take the exam.						
Teaching methods		Lectures, Exercises, Seminars and Colloquia						
Subject content per week		Lectures: 1. Introduction to pharmacology and acquaintance with the subject. Division of pharmacology into disciplines. Origin of drugs. Definitions - medicine, poison. 2. Introduction of new drugs and pre-clinical and clinical trial phase 3. Pharmacokinetics: The passage of drugs through biological membranes. Resorption of drugs. Means of giving medication. General and local administration of the drug. 4. Distribution of drugs. Drug metabolism. Factors that affect drug metabolism. 5. Importance of pharmaceutical formulations. Bio availability. Eliminate drugs. 6. Pharmacodynamics. Dosage and doses of drugs. Therapeutic index and therapeutic width of the drug. 7. The modes of action of medicines. Location of drugs. Receptors.						

¹The coefficient of student workload S₀ is calculated as it follows:

- a) for the study programs not going through the licensing process: S₀ = (total workload in semester for all of the subjects 900 hrs – total teaching workload L+E in semester for all of the subjects 870 hrs)/ total teaching workload L+E in semester for all of the subjects ____ hrs = _____. Consult form content and its explanation.
- b) for the study programs going through the licensing process, it is necessary to use form content and its explanation.

	<p>8. Affinity and relationship of the structure and effect of the drug. Usual and inferior regulation of the receptor.</p> <p>9. Agonists and antagonists .. Synergism and antagonism among drugs ..</p> <p>10. Pharmacogenetics. The influence of gender on the use of drugs. Application of drugs in pregnancy and breastfeeding Special features of pharmacotherapy in the elderly and in the pathological state.</p> <p>11. Drug interactions. Side effects of medicines. Addictions.</p> <p>12. Pharmacology of autonomic nervous system (FANS) - Introduction, division, transmitters. receptors.</p> <p>13. Cholinergic receptors, cholinergic and anticholinergic drugs (parasimpatomimetics and parasimpatolytics). Direct and indirect cholinesterase inhibitors.</p> <p>14. Adrenergic and antiadrenergic drugs (sympathomimetics and sympatholytics). Ganglia blockers.</p> <p>15. Histamine and antihistamines Serotonin and antiserotonic drugs Migraine therapy.</p> <p>Exercises:</p> <p>1. Getting acquainted with the practical teaching curriculum; use of the Medicines Register; drug data sources</p> <p>2. Drug (definition, division), drug names, drug use pathways</p> <p>3. Mechanisms of drug action</p> <p>4. Pharmacopoeia and active principles of plant drugs</p> <p>5. Introduction to recipe, general rules for prescribing prescriptions</p> <p>6. Reception - tablets</p> <p>7. Dosage and drug effect ratio (experimental exercise)</p> <p>8. Competitive antagonism (experimental exercise)</p> <p>9. Uncompetitive antagonism, synergism and interaction (experimental exercise)</p> <p>10. Administration of drugs to special groups of patients</p> <p>11. Reception - powders</p> <p>12. Cholinergic and anticholinergic drugs (experimental exercise)</p> <p>13. Adrenergic and antiadrenergic drugs (experimental exercise)</p> <p>14. Mistakes on the recipe, repetition of recipe materials</p> <p>15. Colloquium</p>			
	Compulsory literature			
Author/s		Publication title/Publisher	Year	Pages (from-to)
Varagić V., Milošević M		PHARMACOLOGY, XXIII edition, Belgrade: Elit-medica	2012	
Rang et al		PHARMACOLOGY, V edition, Belgrade: Data Status	2005	
Kažić		PHARMACOLOGY, CLINICAL PHARMACOLOGY, IV edition, Belgrade: Integra	2005	
Kažić T		Workbook from pharmacology, I edition; Belgrade: CIBIF	2003	
Anđelković D		Recipe, Belgrade; Medical Faculty Belgrade	1998	
Student responsibilities, types of student assessment and grading	Grading policy		Points	Percentage
	Pre-exam activities			
	lecture/exercise attendance		10	10%
	Seminar paper		20	20%
	Test / colloquium		20	20%
	Final exam			
	Oral exam		50	50%
TOTAL			100	100 %
Certification date		June 17th 2024		

* the number of necessary rows is added by using insert mode