MASTER`S PROGRAMME

CLINICAL CHEMISTRY

1ST YEAR OF STUDY, 1ST SEMESTER

COURSE TITLE		**DRUG DESIGN**
COURSE CODE		
COURSE TYPE		full attendance/ tutorial
COURSE LEVEL		2nd cycle (master's degree)
YEAR OF STUDY, SEMESTER		1st year of study, 1st semester
NUMBER OF ECTS CREDITS		6
NUMBER OF HOURS PER WEEK		4 (2 lecture hours + 2 seminar hours)
NAME OF LECTURE HOLDER		Mangalagiu Ionel
NAME OF SEMINAR HOLDER		Mangalagiu Ionel
PREREQUISITES		Advanced level of English
A	**GENERAL AND COURSE-SPECIFIC COMPETENCES**	
	General competences: **Course-specific competences**: Basically knowledge's concerning qualitative and quantitative correlation between Synthesis, Structure and Biologically Active Compounds (SAR and QSAR).	
B	**LEARNING OUTCOMES**	
	At the end of the course students will have solid knowledge concerning SAR, mechanism of action, synthesis and biological activity in related with different classes of drugs/ biologically active compounds.	
C	**LECTURE CONTENT**	
	1) Fundamental knowledge's of drug design. SAR and QSAR 2) Design in the class of chemotherapeutic compounds 3) Design in the class of biologically active compounds used in diseases of central nervous system 4) Design in the class of biologically active compounds used in hypertensive disesses	
D	**RECOMMENDED READING FOR LECTURES**	
	1. Grahman, P.L. An introduction to medicinal chemistry, 2nd ed.; Oxford University Press, 2001. 2. Silverman,R.B. *The Organic Chemistry of Drug Design and Drug Action*, Academic Press, New York,1992. 3. Nogrady, T. *Medicinal Chemistry*; Oxford University Press: New York, NY, USA, 1998. 4. Publications Mangalagiu: 1995-2020.	
E	**PRACTICAL WORKS AND SEMINAR CONTENT**	
	Labor protection. Presentation of laboratory works. Design in the sulfamide class. Homosulfanilamida. Antimicrobials. Design. 2- (2- (2,6-bis (2-methoxy-2-oxoethoxy) phenyl) -2-oxoethyl) phthalazin-2-ium bromide. Tuberculosis. Design. 3,5-Bis- (chloromethylpyridin) acetophenone. Antineoplastic. Design. 2- (1H-imidazol-1-yl) -N- (quinolin-8-yl) acetamide. Hypnotics and sedatives. Design. Barbituric acid or Phenothiazine derivatives. Analgesic-antipyretic. Design. Pyrazolones. Final test. Evaluation of results.	
F	**RECOMMENDED READING FOR PRACTICAL WORKS AND SEMINARS**	
	1. Valette, G & Co. *Medicaments Organiques de Synthese*, Vol. 1-7, Ed. Masson et C-ie, Paris, 1969- 1976. 2. Publications Mangalagiu: 1995-2020.	
G	**EDUCATION STYLE**	
LEARNING AND TEACHING METHODS		Mixed
ASSESSMENT METHODS		Conditions: Practical works and seminarium are compulsory. Evaluation: Written examination during semester Written examination at the final of semester Marks: scale: 1 to 10 20 % - evaluation during semester 80%- final exam
LANGUAGE OF INSTRUCTION		English