




## DISCIPLINE SHEET

### 1.-Info about the program

<b>FOUNDATION FOR DEVELOPMENT AND MANAGEMENT</b>	
1.2-Faculty	<b>FACULTY OF MEDICINE</b>
1.3-Departament	Preclinical/Fundamental Disciplines
1.4-Study domain	Health
1.5-Study cycle	Bachelor
1.6-Study program/ Calification	Medicine-English



### 2.-Info about discipline

2.1- Name of the discipline		<b>PHARMACOLOGY_I</b>						
2.2-Course lecturer		Prof. Dr. <b>ATANASE Leonard-Ionut</b> ,MD,PhD						
2.3-Seminary lecturer		1.- Prof. Dr. <b>ATANASE Leonard-Ionut</b> ,MD,PhD  2.-Associate University Assistant <b>VICOVAN Andrei-Gheorghe</b> ,MD,PhD <b>na</b>						
2.4-Year of study	III	2.5 Semester	I	2.6 Evaluation type	Exam	2.7. Discipline regime	Content	<b>DF</b>
							Mandatory	<b>DOB</b>

### 3. -Total time (hours of didactic activity per semester)

3.1-Number of hours per week	3	3.2 -course	1	3.3- laboratory	2
3.4-Total hours of the curriculum	42	3.5 -course	14	3.6 -laboratory	28
Distribution of time					Hours
Study after manual, course support, bibliography and notes					30
Additional documentatin in the library, on the specialized electronic platforms and on the field					15
Training seminars/laboratories/projects, themes, papers,portofolios and essays					5
Tutoring					2
Examination					4
Other activities					2
3.7-Individual study hours	58				
3.8-Total hours per semester	100				
3.9-Credit number	4				

### 4.-Preconditions (if applicable)

4.1.-Curriculum	Anatomy and Embriology, Physiology, Biochemistry, Parasitology, Morphopathology, Pathophysiology
4.2.-Learning Outcomes	Interpretation of ECG, analysis report, chest X-ray



5.-Conditions (where applicable)

5.1. -Course Conduct	-Projector
5.2.-conducting the seminar/laboratory	-white coats -laboratory equipment, laboratory guide

6. Learning outcomes

<b>Knowledge</b>	Identifies, describes, explains and classifies the mechanisms of disease production, risk factors, pathogens (bacteria, viruses, parasites) and types of immunological response, as well as the development of pharmacological and genetic approaches.
<b>Skills</b>	Correctly interpret and apply fundamental concepts regarding disease mechanisms and methods for investigating biological functions.
<b>Responsibilities and autonomy</b>	Integrates fundamental notions and methods of investigating biological functions, formulates and assumes reasoned conclusions regarding the general mechanisms of disease production and general principles of treatment.

7.-Objectives of the discipline (resulting from the grid of specific skills accumulated)

7.1 -General objective of the discipline	1.-The lecture aims to learn the terminology of pharmacokinetics, pharmacodynamics and general pharmacotoxicology, as well as the main classes of drugs. Within the classes of drugs, the use of their therapeutic uses, adverse effects, contraindications and drug interactions (drug-drug or drug-food) is sought. 2.-Practical objectives of applying the knowledge gained during the course by prescribing appropriate drugs to the selected cases according to the desired effect, contraindications and associated pathology. There is medical reasoning that prescribes the treatment of a disease based on scientific evidence.
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7.2- Specific objectives	<p>1.-Knowledge and understanding of the theoretical and practical knowledge of the different classes of medicines.</p> <p>2.-Understanding the basis of choosing a drug/drug in certain pathologies depending on the mechanism of action and pharmacodynamic aspects.</p> <p>3.-Explanation of how to administer the medicinal product according to the pharmacokinetic properties of the medicinal products</p> <p>4.-Concern for professional development by engaging critical thinking skills demonstrated through active participation in the course and laboratory</p> <p>5.-Involvement in scientific research activities by participating in the elaboration of papers, studies, specialized articles as well as involvement in the activities of scientific students;</p> <p>6.-Efficient use of information sources and communication and assisted training resources (internet portals, specialized software applications, databases, online courses, etc.)</p>
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8.-Contents

8. 1-Course (homework, number of hours, bibliography)	hours /2 week	Teaching methods
1-2.-Pharmacology: General principles. Routes of drug administration. Principles of pharmacotherapy. Pharmacokinetics.	2	Active and Interactive Video Projection
3-4.-Pharmacodynamics. Pharmacotoxicology. Pharmacology of autonomic drugs: cholinergic agents.	2	Active and Interactive Video Projection
5-6.-Pharmacology of autonomic drugs: adrenergic agents. Pharmacology of the respiratory system	2	Active and Interactive Video Projection
7-8.-Pharmacology of antihypertensive drugs. Pharmacology of positive inotropic agents	2	Active and Interactive Video Projection
9-10.-Pharmacology of antiarrhythmic and antianginal drugs. Pharmacology of antianemic drugs	2	Active and Interactive Video Projection
11-12.-Pharmacology of antithrombotic and hemostatic drugs. Pharmacology of gastrointestinal drugs I (drugs used in peptic ulcer disease, antiemetic drugs)	2	Active and Interactive Video Projection
13-14.-Pharmacology of gastrointestinal drugs II (choleretic drugs, cholagogue drugs, hepatoprotective drugs, drugs that dissolve gallstones, laxatives, purgatives, antidiarrheal drugs). Pharmacology of water, electrolytes, and plasma substitutes	2	Active and Interactive Video Projection
Mandatory bibliography		
1.-Dobrescu Dumitru; Negres Simona; Dobrescu Liliana / ALLOPATHIC AND HOMEOPATHIC PHARMACOTHERAPEUTIC GUIDE – 2019, University Publishing House		



- 2.-DUMITRAȘCU, Victor s.a. PHARMACOLOGY Course for General Medicine Students, vol.1. – Timișoara: "Victor Babeș" Publishing House, 2018  
 3.-DUMITRAȘCU, Victor s.a. PHARMACOLOGY Course for General Medicine Students, vol.2. – Timișoara: "Victor Babeș" Publishing House, 2018

Optional bibliography

- 1.-Karow T, Lang-Roth R. Pharmacology und Toxicology, 2015  
 2.-Rang H.P, Ritter J.M, Flower R.J, Henderson G. Rang & Dale's Pharmacology Eighth Edition, Ed Elsevier 2016  
 3.-Coord. Prof. univ. dr. DUMITRAȘCU, Victor Practical Applications of PHARMACOLOGY for General Medicine, vol.1. –Timișoara: "Victor Babeș" Publishing House, 2019  
 4.-Coord. Prof. univ. dr. DUMITRAȘCU, Victor Practical Applications of PHARMACOLOGY for General Medicine, vol.2. –Timișoara: "Victor Babeș" Publishing House, 2019  
 5.MIREL Simona, COLOBĂȚIU Liora – Medical devices available in pharmacy, Cluj-Napoca: Ed. M.U. Iuliu Hațieganu, 2015  
 6.-Red. NECHITA, Aurel National Congress with International Participation for Students, Pharmacists and Resident Physicians BOOK OF ABSTRACTS, Galați, Ed. Universitas Galentensis, 2018  
 7.-STAHL, Stephen M., The Prescriber's Guide (Sixth Edition) / Stephen M. Stahl. - Cambridge University Press, U.K. -Pag. V-XVI index, content, 868 pages, graph., fig., book in English. - Medicine Collection. - ISBN: 978-1-316-61813-4 , ISBN: 978-1-108-40488-4, Cambridge University Press, U.K, 2017  
 8.-STAHL, Stephen M., Stahl's Essential Psychopharmacology Neuroscientific Basis and Practical Applications Cambridge University Press, U.K, 2017  
<https://worldscholarshub.com/ro/free-medical-books-pdf>

8. 2- Laboratory (themes, number of hours, bibliography)	hours /2 week	Teaching methods
1-2.-Drugs: General Principles <ul style="list-style-type: none"> <li>• Pharmacopoeia</li> <li>• Pharmaceutical dosage forms I: oral and parenteral dosage forms</li> </ul>	2	Practical laboratory activities
3-4.-Pharmaceutical dosage forms II: <ul style="list-style-type: none"> <li>• Rectal, vaginal, ophthalmic dosage forms</li> <li>• Dosage forms applied to skin and mucous membranes, aerosols</li> <li>• Prescription: definition, prescription rules, and contents of a medical prescription</li> </ul>	2	
5-6.-Importance of pharmacokinetic parameters in the rational design of a therapeutic regimen: -Rules for calculating loading dose, maintenance dose, and dosing intervals	2	
7-8.-Dose adjustment based on patient-specific	2	



<p>characteristics: -Special precautions for drugs with a narrow therapeutic index and calculation methods for this index</p> <p style="text-align: center;"><b>Test 1: General Pharmacology</b></p>		
<p>9-10.-Practical applications of autonomic nervous system pharmacology:</p> <ul style="list-style-type: none"> <li>• H1 receptor antagonists</li> <li>• Practical applications of respiratory system medication</li> <li>• Practical applications of antihypertensive medication</li> <li>• Practical applications of positive inotropic drugs</li> </ul>	2	
<p>11-12. Practical applications of:</p> <ul style="list-style-type: none"> <li>• Antiarrhythmic and antianginal medications</li> <li>• Antianemic medications</li> <li>• Antithrombotic and hemostatic medications</li> </ul>	2	
<p>13-14.-Practical applications of drugs used for peptic ulcer disease and antiemetics</p> <p>-Practical applications of:</p> <ul style="list-style-type: none"> <li>• Choleric, cholagogue, and hepatoprotective drugs</li> <li>• Drugs that dissolve gallstones</li> <li>• Laxatives, purgatives, and antidiarrheal drugs</li> </ul> <p style="text-align: center;"><b>Test 2: Pulmonary and Cardiac Pharmacology</b></p>	2	
<p>Mandatory bibliography</p> <p>1.-Dobrescu Dumitru; Negres Simona; Dobrescu Liliana / ALLOPATHIC AND HOMEOPATHIC PHARMACOTHERAPEUTIC GUIDE – 2019, University Publishing House</p> <p>2.-DUMITRAȘCU, Victor s.a. PHARMACOLOGY Course for General Medicine Students, vol.1. – Timișoara: "Victor Babeș" Publishing House, 2018</p> <p>3.-DUMITRAȘCU, Victor s.a. PHARMACOLOGY Course for General Medicine Students, vol.2. – Timișoara: "Victor Babeș" Publishing House, 2018</p> <p>Optional bibliography</p> <p>1.-Karow T, Lang-Roth R. Pharmacology und Toxicology, 2015</p> <p>2.-Rang H.P, Ritter J.M, Flower R.J, Henderson G. Rang &amp; Dale's Pharmacology Eighth Edition, Ed Elsevier 2016</p> <p>3.-Coord. Prof. univ. dr. DUMITRAȘCU, Victor Practical Applications of PHARMACOLOGY for General Medicine, vol.1. –Timișoara: "Victor Babeș" Publishing House, 2019</p> <p>4.-Coord. Prof. univ. dr. DUMITRAȘCU, Victor Practical Applications of PHARMACOLOGY for General Medicine, vol.2. –Timișoara: "Victor Babeș" Publishing House, 2019</p> <p>5.MIREL Simona, COLOBĂȚIU Liora – Medical devices available in pharmacy, Cluj-Napoca: Ed. M.U. Iuliu Hațieganu, 2015</p>		



6.-Red. NECHITA, Aurel National Congress with International Participation for Students, Pharmacists and Resident Physicians BOOK OF ABSTRACTS, Galați, Ed. Universitas Galentiensis, 2018

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8.-STAHL, Stephen M., Stahl's Essential Psychopharmacology Neuroscientific Basis and Practical Applications Cambridge University Press, U.K, 2017

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9.-Corroborating/validating the contents of the discipline with the expectations of the representatives of the epistemic community, professional associations and employers representative of the field related to the program



The contents of the discipline are in accordance with the RNCIS standards.

10.-Evaluation

Activity Type	10.1-Evaluation criteria	10.2-Evaluation methods	10.3- Weight of the final grade
10.4 -Course	<ul style="list-style-type: none"> <li>o—Requirements for grade 5: common name, main effects, adverse effects of medicinal substances. These requirements are included in 50% of the questions.</li> <li>o—Requirements for grade 10: common and commercial name, mechanism of action, pharmacodynamics, therapeutic uses, adverse effects, contraindications, pharmacography of medicinal substances.</li> </ul>	Written test with 50 multiple-choice questions (10 variants) with a different degree of difficulty, lasting 120 minutes, including questions on the course topic.	50%
10.5 -Seminar /laboratory	<ul style="list-style-type: none"> <li>o—Requirements for grade 5: general rules for prescribing medicines.</li> <li>o—Requirements for grade 10: correct and complete prescription of the treatment regimen for the case</li> </ul>	Drafting a medical prescription of a case selected by lot by the student.  Writing emergency medications for a case selected by drawing lots by the student.  Justification of the therapeutic choice made in both cases.	40%



10.3. Activity during the year:		Attendance at classes Degree of interactive engagement Test scores: sample I, II, III and IV	10%
10.5- Seminar/laboratory	Evaluation of the fundamental notions of physiology and pathophysiology	Practical exam - theoretical-online - practical test in the last LP	25%
	Project	Project presentation - online	10%
	Checking along the way	Online Testing	15%
10.6 -Minimum Performance Requirement			
- knowledge of the main classes of drugs - knowledge of the therapeutic indications of each class of drugs - knowledge of the route of administration for each class of drugs			

Date: 15.05.2025	Signature of the discipline coordinator: Prof. Dr. <b>ATANASE Leonard-Ionut</b> ,MD,PhD 	Holder of the seminar activities: 1.- Prof. Dr. <b>ATANASE Leonard-Ionut</b> ,MD,PhD  2.-Associate University Assistant <b>VICOVAN Andrei-Gheorghe</b> ,MD,PhD
Date of approval in the Department		
Signature of the Director of Department		

Reprezentant legal F.D.M.  
Presedinte  
Prof. Univ. Dr. POSTĂVARU Nicolae

