

DESCRIPTION OF THE SUBJECT (MODULE)

Name of the subject (module)CodePharmacology 1/2

Annotation

The objective is to enhance the pharmacy student's knowledge of pharmacology, develop an understanding of medicinal products, and analyze scientific data on medicines

Lecturer(s)			Unit(s)
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Graduate	Subject (module) level	Type of subject (module)
Integrated studies (I and II	1 of 2	Compulsory
cycles)		

Form of implementation	Execution period	Implementation language(s)
Lectures and workshops in the	Autumn semester	Lithuanian
auditorium		

Requirements for the student							
Prerequisites:	Students	must	have	taken	Concurrent requirements (if any): none		
subjects in anatomy, physiology, biochemistry							

Scope of the subject (module) in credits	Student's full	Contact working	Self-employment
	workload	hours	hours
5	135 hours	64	71

C	Objective of the subject (module): competences developed by the study programme								
The unde othe	The aim is to develop the knowledge of the student of the pharmacy specialty, the ability to understand the processes of pharmacology; develop the ability to work in a team together with other students; to be able to think critically and self-critically.								
	Subject (module) study objectives	Study methods	Assessment methods						
1.5	will be able to apply the latest knowledge of the processes of drug metabolism and their effects, the action of toxic substances, and the function and use of medicinal products in practice;	Research-based and problem-oriented learning. Work during exercises and seminars. Analysis of clinical situations	Colloquium						
3.6	will be able to evaluate research data on medicinal products and provide information and advice on medicinal products to patients and other healthcare professionals, including information on rational use of medicines;	Lectures in the Virtual Learning Environment (VMA), lectures, seminars	Colloquium						
5.4	is able to think analytically, apply the latest research findings in professional activities, and be creative working at the junction of	Case study method, discussions, problem-	Formative assessment, independent						

	pharmaceutical and various other fields of	oriented learning. Work	work and
	science;	during seminars	task solving
6.4	The graduate must use critical, systemic and creative thinking in solving different issues and making decisions, try to anticipate the most problematic areas and take preventive measures, and, when problems arise, develop unique problem-solving algorithms in order to find the best solutions to issues:	Experiential learning, discussions, reflection in groups and in the audience. Work during exercises and seminars.	Formative assessment, independent work and task solving

Themes	Contact working hours					Self-study times and tasks			
	Lectures	Consultation	Workshops	Exercises	l aboratory work	Dractice	Full contact work	Self-employment	Tasks
1. Introduction to pharmacology. Drug development and clinical trials	2		2				4	4	Read the literature of 1 topic (sections 1 and 7) Prepare for seminars.
2. Pharmacodynamics	4		2	4			10	12	Read Topic 2 Literature (Chapters 2-6) Prepare for seminars and seminars and exercises.
3. Pharmacokinetics	6		2	8			16	20	Read the literature of 3 topics (sections 8-10) Prepare for the exercise.
 Antimicrobial drugs. Antibiotics. Rational use of antibiotics 									Read Topic 4 Literature (Chapters 50-51) Prepare for seminars and exercises.
5. Antiviral drugs	4		4	0			14	14	Read the literature of 5 topics (Chapter 52) Prepare for seminars.
6. Antifungal drugs	2		2	2			6	6	Read the literature of 6 topics (Chapter 53) Prepare for seminars.
7. Protozoa, worm drugs	2		2				4	4	Read the literature of 7 topics (Chapter 54) Prepare for seminars.
8. Drugs that affect the autonomic nervous system Total:	2 16		24	4 24			6 64	10 71	Read the literature of 8 topics (chapters 12-14) Prepare for the exercise.

Evaluation strategy	Weigh t %	Billing time	Evaluation criteria
Colloquium1	40	During the semester	Answers to closed or open-ended questions are evaluated. The questions require optional answers. The evaluation criteria are submitted to students in writing at the beginning of the semester. Evaluated according to the ten-point system: $10- \ge 92\%$ correct answers 9-82-91% of correct answers 8-74-81% of correct answers 8-74-81% of correct answers 6-58-65% of correct answers 5-50-57% of correct answers 4-40-49% of correct answers 3-30-39% of correct answers 2-20-29% of correct answers $1-\le 19\%$ of correct answers
Colloquium 2	30	During the semester	Answers to closed or open-ended questions are evaluated. The questions require optional answers. Evaluated according to the ten-point system, see column 1.
Colloquium 3	30	During the semester	Answers to closed or open-ended questions are evaluated. The questions require optional answers. Evaluated according to the ten-point system, see column 1.
Cumulative standings		Session	Consists of 3 passed colloquiums with closed or open- ended responses.

Author	Year of publ icati on	Title	Periodical No. Is the volume of the publicatio n	Place of publication and publishing house or a web link
Compulsory Literatur	е		1	
Rang H.P. et al.	2024	Pharmacology	9 ed.	Churchill Livingstone
B.G. Katzung, S.B. Masters, A.J. Trevor.	2018	Basic and clinical pharmacology. 11th ed.	14 ed.	McGraw Hill Medical
Richard A. Harvey Karen Whalen PharmD	2015	Pharmacology	6 ed	Lippincott Illustrated Reviews
Katzung B.G. and Others.	2018	Basic and clinical pharmacology. Edition 9.	Translated from Basic & Clinical Pharmacol ogy, 9/e by Katzung B.G., The McGraw- Hill Companies	Vilnius, Charibde, 2007
	1	Further reading	1	L
J. Gulbinovič et al.	2004	Infections and anti- infective drugs		Vilnius: "Vaistų žinios",

Laurence L. Brunton,	2017	Goodman & Gilman's	13 ed.	McGraw Hill Medical
Bruce A. Chabner,		The Pharmacological		
Björn C. Knollmann		basis of therapeutics.		
Vytautas	2019	Clinical significance of		UAB "Vaistų žinios"
Kasiulevičius, Vincas		pharmacokinetic		
Lapinskas		constants		