

MED 4008–Clinical Pharmacology

Course Name	Code	Semester	Type of course	Theory (hours)	Group work (hours)	ECTS
Clinical Pharmacology	MED 4008	XIII	Mandatory	15	26	3
Faculty, the educational program and education level	Faculty of Medicine, one-cycle Educational Program “Medicine”					
Author (s)	Maia Okujava –invited teacher, Associate Professor Mob.tel.: 599 1693 95 e.mail:maiaokujava@yahoo.com Consultation day and time - individually					
Educational course format	Lecture Group Work					
Educational course Loading	Total: 90 hours Contact hours: 45 h 1. Lecture – 15 h 2. Team work – 26 h 3. Midterms – 2 h 4. Final exam -2 h Independent work – 45 h					
Prerequisites	MED 3011 - Pharmacology					
The purpose (s) of tutorial course/modules	The central goal of the learning course is to understand the mechanism of action and the effects and indications of the major therapeutic drug classes, to understand the clinical use of the major class of clinically important drugs including the drugs which are used to restore physiological functions in the peripheral nervous and central nervous system, cardiovascular system, renal, respiratory, digestive system etc., to understand clinically relevant side effects of the drugs that may adversely affect the health of the patient, understand the circumstances in which the drug not be administered to certain patient population due to significantly increase risk of adverse effects.					
Teaching and learning methods	Lecture - Face-to-Face - verbal contact, slides for the lecture will be provided with Power Point Demonstration –slides, tables and other visual aids; Abstract preparation and presentation in group with the following discussion and analysis of it; Discussion – questions and answers, answers analysis supported with practical facts; Work with additional literature: additional literature, periodical issues and internet information technology sources; Consultation –individual support work with students (weekly)					
Assessment criteria	Maximum score- 100: 1. Midterm assessment -60 , that includes:					

1.1. Attendance -10 score

1.2. Activity – 30 score:

1.2.1. Practical skills 20 score

1.2.2. Abstract preparation and presentation-10 scores

1.3. (Midterm Exam – 20) –

Minimal score of midterm assessment (for final exam) – is 11.

Group Work is Assessed Based on the Following Criteria (maximum 5 scores)

5 scores– Student has been able to present complete answer of the question, and the way of thinking. The theme is presented completely and the terminology is used correctly by the student. He/she brings forward a balanced view of the main arguments on the issues. Student has complete and thorough knowledge of the learning course. Student demonstrates considerable depth of understanding of the studied main and additional literature.

4 scores– Student has been able to present answer to all question, but it feels lack of independent way of thinking, the terminology is used correctly; there is no significant error; Student has good knowledge of the learning course and demonstrates understanding of the studied main literature.

3 scores– Student has been able to present the uncompleted answer of questions. The student's answers are learnt mechanically and aren't understood. There is lack of knowledge of terminology; Student has knowledge of the learning course and demonstrates understanding with a little bit mistakes.

2scores – Student has been able to present the uncompleted answer of questions. The terminology is incorrect; Student has lack of knowledge of the learning course and demonstrates uncompleted understanding of main literature; there has been done some fundamental errors by the student

1 score – Student has been able to present only unsatisfied answer of questions with using the insufficient terminology or without any terminology. The answer is incorrect, uncompleted and not appropriated.

0 score– Student has no appropriate answer of the question or has no answer at all.

Abstract preparation and presentation's criteria (10 scores - max.):

1. Actuality of appointed problem – 2 score;
2. Research observation in the write of topic -2 sc.
3. Correctness of conclusion and the connection with the main text - 2 score
4. Writing culture – 2 sc.
5. Visual and technical side of the material – 1sc;
6. Accuracy and reliability of indicated references and literature sources – 1 score;

1.3. Midterm Exam – 20 scores

Written test -20 question, 1 score for each – max. 20;

Minimal scores of midterm assessment (for final exam) – is 11.

2. Final Exam -40 scores

Is held in the written test form (test consists of 40 questions, each question is rated as 1 score).

The final exam would accounted as passed in case of maximum 70% or more ($40 \times 70 / 100 = 28$ scores).

Credit will be given to the student if he has collected at minimum 51 scores out of 100.

Student's assessment has to be done in the following way:

	<p>Positive rate:</p> <ul style="list-style-type: none"> • (A) Excellent- 91 or more scores; • (B) Very Good- 81-90 scores; • (C) Good- 71-80 scores; • (D) Satisfactory- 61-70 scores; • (E) Enough- 51-60 scores; <p>Negative rate:</p> <ul style="list-style-type: none"> • (FX) Failure - 41-50 scores, which means that a student needs to work more and an independent and considerable further work is required to pass the exam once again to be re-awarded; • (F) Fail – 40 scores or less, which means that the student's diligence is not sufficient and student has to learn the subject all over again. <p>Student can pass the additional exam during the same semester.</p> <p>The time interval between the final and the additional exams should be not less than 10 days.</p>
The basic literature	Bertran G.Katzung Susan B. Masters Anthony J. Trevor Basic & Clinical Pharmacology, McGray Hill lange,2012
The auxiliary literature	Edited by: Rang & Dale Pharmacology Elsevier Churchill Livingstone, VII, 2012

The tutorial/training course content

Nº	Subjects	Lecture (hour)	Work in group (hour)
1	Cardiovascular drugs. Drugs used in hypertension.	2	4
2	Drugs with important actions on smooth muscle. Vasodilators and treatment of angina, drugs used in congestive heart failure. Antiarrhythmic and diuretic drugs.	1	2
3	Drugs that act in the central nervous system. Sedative-hypnotic drugs, alcohols. Opioid analgesics, drug of abuse, anti-seizure drugs Antidepressants and antipsychotic drugs. Histamines, serotonin and ergoalkaloids, prostaglandins and other eicosanoids.	2	4
4	Drug with important actions on blood. Drugs used in coagulation disorders	1	4
	Midterm Exam		2
5	Drugs with important actions on inflammation and gout.	3	4
6	Nonsteroidal anti-inflammatory drugs.	1	2
7	Antireumatal drugs with pro-longed action. Corticosteroids and anti-gout drugs.	2	2
8	Bronchodilators and other drugs used in asthma	1	2

9	The basic principles of antimicrobial therapy, beta-lactam antibiotics and other inhibitors of the cell membrane, antiviral drugs.	2	2
	Final Exam		2

Learning Outcomes

Criteria	Competences
Knowledge and Understanding	At the end of this course student will have theoretical background that enables students to provide safe and effective care related to drugs to persons throughout the lifespan.
Applying knowledge	Students will learn to make selected clinical decisions regarding using current, reliable sources of information, monitoring and evaluating the effectiveness of drug therapy, teaching persons from diverse populations regarding safe and effective use of drugs and natural products, intervening to increase therapeutic benefits and reduce potential negative effects, and communicating appropriately with other health professionals regarding drug therapy. Drugs are studied by therapeutic or pharmacological class using an organized framework.
Learning Ability	The results obtained in terms of pragmatic understanding enables students to assess the level of knowledge gained learning course for the time rationale schedule and determine the necessity of further studies. Student will have the possibility to develop the received knowledge about clinical pharmacology during the following practical work