

MED 3011 - Pharmacology

Course Name	Code	Semester	Type of course	Theory (hours)	Group work (hours)	ECTS
Pharmacology	MED 3011	IV	Mandatory	20	36	4
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: 120 hours Contact hours: 60 h, that includes: <ol style="list-style-type: none"> 1. Lecture – 20h 2. Group work – 36 h 3. Midterms – 2 h 4. Final exam -2 h Independent work –60 h					
Prerequisites	None					
The purpose (s) of tutorial course/modules	To teach the basic principles of pharmacokinetics, pharmacodynamics, clinical and rational pharmacotherapy; proper prescriptions of medicines during pregnancy and for different ages patients.					
Teaching and learning methods	Lecture - Face-to-Face - Direct verbal contact; Demonstration - illustrations, slides and other visual aids; Analyses and interpretation of different medical cases; Practical work on the clinic base; Abstract preparation and presentation - Students choose material from provided problematic topics or independent way, process sufficient material, will work with the books and presents in auditorium for estimation; Discussion – questions and answers, answers analysis supported with visual aids, debate, argued conclusion, (this method develops the discussion an listening culture) Consultation –individual support work with students (weekly)					

Assessment criteria

Maximum score- 100, where

Midterm assessment -60 score

- Attendance – 10 scores;
- Group work activity – 10 scores;
- Abstract preparation and presentation -10 scores;
- Discussion – 10 scores
- **Midterm Exam – 20 scores**

Group Work are Assessed Based on the Following Criteria (maximum 10 point)

10 scores- Student has been able to present complete and thorough knowledge of the subject, a substantial amount of detailed and relevant information. Demonstrate considerable depth of understanding of the studied main and additional literature. Bring forward a balanced view of the main arguments on the issues.

9 scores - Student has been able to bring forward a consistent number of deductions on most of the topics tackled. make very good comments on the different perspectives on most of the issues. Demonstrates knowledge of the main readers.

8 scores - Student has been able to bring forward a consistent knowledge, Has properly developed terminology. Demonstrates knowledge of the main readers.

7 scores - Student has been able to present some factual information sufficiently linked with the topic. Demonstrate a good understanding of the topics selected. make a good attempt to bring forward a balanced view of some arguments on the issues. Terminology is partially developed.

6 scores - Student has been able to make some good comments on the different perspectives on some of the issues. Make poor deductions on most of the topics tackled. analyse some causes and results of human interactivity related to the issues.

5 scores - Student has been able to demonstrate inconsistent comments on the different perspectives on some of the issues. Terminology is partially developed. Present mediocre level of knowledge. Make poor deductions.

4 scores - Student demonstrates general overview of the topics. Terminology is not developed. Information sufficiently linked with the topic. Demonstrate irrelevant understanding of the literature.

3 scores – Student demonstrates general/superficial and inconsistent knowledge of the subject. No sufficient knowledge of the literature.

2 scores - Student demonstrates general comments, no knowledge of the terminology, no consistency.

1 score – Student demonstrates insufficient answer, not terminology awareness, chronologic manner of the answer, mostly wrong, no knowledge of literature.

0 score: Student demonstrates not even elementary knowledge of the topics.

Abstract Preparation and Presentation- Maximum 10 scores

1. Actuality of the problem- 2 score;
2. Review of the literature (data) on the issue-2 score;
3. Relevance of research methods with the research goal - 2 score;
4. Writing accuracy -2 score;
5. Visual and technical sides of the material - 1 score;
6. Accuracy of the cited literature, trusted sources- - 1 score;

	<p>Discussion assessment criteria (10 scores- max.)</p> <ol style="list-style-type: none"> 1. Argumentativeness of represented factual material -2 scores; 2. Complexity of represented factual material -2 scores; 3. Discussion activity – 2 scores; 4. Debating and listening culture - 2 scores; 5. Keeping within the time-limit – 2 scores. <p>Midterm Exam – 20</p> <p>Is held in the written test form (test consists of 40 multiple-choice questions, each question is rated as 0.5 score).</p> <p>Minimal score of midterm assessment (for final exam admission) – is 11; to take in account that student will receive the maximum score at the final exam.</p> <p>Final Exam – 40 score max.</p> <p>Is held in the written test form (test consists of 60 multiple-choice close questions, each question is rated as 0.5 score and 10 open questions each question is rated as 1 score).</p> <p>Students have to score equal or more than 70% from final exam maximum score (40X70/100=28 maximum 28 scores from the overall 40) to pass the final examination.</p> <p>Credit will be given to the student if he has collected at minimum 51 scores out of 100.</p> <p>The students' assessment has to be done in the following way:</p> <p>Positive rate:</p> <ol 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> <p>(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;</p> <p>(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> <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	<p>Goodman & Gilman's The Pharmacological Basis of Therapeutics (12th edition, 2011); Melmon & Morelli's Clinical Pharmacology</p>
The auxiliary literature	<ol style="list-style-type: none"> 1. Pharmacology, Lippincott's illustrated Reviews. 5th edition, 2011. 2. Rang H. P., Dale M. M., Pharmacology, seventh edition, 2011. 3. Bertram Katzung, Basic and Clinical Pharmacology 13th edition, 2014.

The tutorial/training course content

Nº	Subjects	Lecture (hour)	Work in group (hour)
1	Basic concepts of pharmacokinetics and their use in therapeutic drug monitoring	2	4
2	Basic pharmacodynamics concepts	4	6
3	Pharmacotherapy and basic principles of rational drug use	2	4
4	Clinical phases of drug development	2	4
	Midterm Exam		2
5	Research design in clinical pharmacology	2	4
6	Clinical use of antibiotics	4	4
7	Rational drug use in pregnancy	2	4
8	Rational drug use in elderly patients	2	6
	Final Exam		2

Learning Outcomes

Criteria	Competences
Knowledge and Understanding	<p>Student has deep and consistent knowledge of the study area, which enables to elaborate /develop new, original ideas. Understands the approaches for solving problems.</p> <p>At the end of this subject committee, students should:</p> <ol style="list-style-type: none"> 1. Have knowledge about the properties of drugs which can be important in clinical practice 2. Understand the importance of drug use in special age groups such as children, old patients or pregnant women; 3. Learn the factors that alter drug action 4. Acquire knowledge about the toxic and teratogen effects of drugs
Applying knowledge	<p>Student will be able to:</p> <ul style="list-style-type: none"> • chose, prescribe and monitor medicines properly; • examine appropriately and appoint treatment procedures; • evaluate the potential profits and risks of treatment, conduct practical procedures; • observe and discuss the clinical researches' plan and new treatment means creation

Communicative Skills	<p>Students will be able:</p> <ul style="list-style-type: none">• to communicate with colleagues – active writing communication;• to communicate with patients verbally;• persuade and care of patients;• patient information about the prescribed medicines proper using; its positive and negative effects
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