BISHKEK INTERNATIONAL MEDICAL INSTITUTE | GENERAL MEDICINE

APPROVED
EMD decision
"15" 11 2021
Protocol No. 6
Chairman of the EMC Vice-Rector,
candidate of pedagogical sciences,
associate professor Apezova D.U.

SYLLABUS
by discipline

CC.3.8.7. CLINICAL PHARMACOLOGY

For students of the educational program, higher professional education in the specialty 560001 "General Medicine" (5-year education) in the specialty "Doctor"

Type of study work	Total hours
course	5
Semester	9
Number of weeks	18
Credits	3
The total complexity of the discipline	90
Classroom/practical studies (PS)	54
Student Independent Work (SIW)	36
Forms of control	
current control	Testing, oral questioning, written test
Frontier control	Testing
Midterm	Testing
Final control	exam
Semester rating by discipline:	Point-rating system

Information about the teacher of the academic discipline

Full Name	Jumagulova Jyldyz Osmonalievna
Post	teacher
Academic degree	Candidate of medical sciences
Academic title	docent
Email address	
Location of the department (address)	KR, Bishkek, st. Shabdan Baatyr 128, floor 2
Telephone	0558951xxx
Consultation hours	11.00-13.30

Characteristics of the academic discipline

The purpose of studying the discipline is to form students' knowledge, skills and skills of competent selection of the most effective and safe medicines according to their pharmacodynamic and pharmacokinetic characteristics, indications for use;

- alertness to undesirable drug reactions and elimination of the consequences of these reactions;
- teaching students the methodology of mastering knowledge in pharmacology using scientific, reference literature, official statistical reviews, Internet resources and principles of evidence;

- basics of prescription document management and rules for prescribing medicines, storage and use of medicines.
-Objectives of the discipline:
• to acquaint students with the history of the development of pharmacology, the activities of the most prominent persons of medicine and pharmacology, the contribution of domestic and foreign scientists to the development of world medical science;
• to familiarize students with the main stages of the formation of pharmacology as a medical and biological discipline, the main stages of development, fundamental approaches to the creation of medicines;
•to train students to analyze the effect of drugs on the totality of their pharmacological effects, mechanisms and localization of action, pharmacokinetic parameters;
•to teach students to recognize possible side effects and toxicological manifestations when using medicines;
•to teach students the principles of prescribing and composing prescriptions, the ability to prescribe medicines in various dosage forms, as well as in certain pathological conditions;
•to teach students the organization of work with medicines, basic skills of prescription document management, rules for storing medicines from the list of potent and poisonous, as well as lists of narcotic drugs and psychotropic substances;
• to form students' understanding of the role and place of pharmacology among the fundamental and medical sciences, the directions of development of the discipline and its achievements;
• to form students' ability to assess the possibilities of rational choice and use of medicines based on ideas about their properties.

Learning outcomes of the discipline according to the RO GPP

The study of the discipline of microbiology, virology and immunology will contribute to the achievement of learning outcomes (RE) GEP:
RE-6- Evaluate and analyze achievements and discoveries in biomedical science and apply new knowledge in practice.
The achievement of RE-6 is realized by the acquisition of competencies by the graduate, i.e. his ability to apply knowledge, skills and personal qualities in accordance with the tasks of professional activity – SPC-4.
Within the framework of this discipline, it is expected to achieve the following results of teaching the discipline, which are implemented within the framework of achieving competencies:
SPC-4 is capable and ready to carry out its activities taking into account the moral and legal norms accepted in society, comply with laws and regulations on working with confidential information, bear social and ethical responsibility for the decisions taken;

Content of discipline

№№	Name of topics
1.	Section 1. Introduction to pharmacology. General recipe
2.	Introduction to pharmacology. The history of the development of pharmacology.
3.	Pharmacopoeia, its content and purpose. Recipe, its structure, rules for making recipes
4.	Introduction to pharmacology, its history. The concept of a medicinal substance and a medicinal product. Pharmacopoeia. Recipe, its structure, rules for making recipes
5.	Solid dosage forms
6.	Soft dosage forms
7.	Section 2. Means. affecting the peripheral nervous system
8.	Agents affecting afferent innervation: local anesthetics, enveloping, adsorbing, astringent, irritating agents
9.	Agents affecting cholinergic innervation
10.	Agents affecting cholinergic agents: Cholinomimetics and Holinoblockers
11.	Section 3. General pharmacology
13.	General pharmacology: pharmacodynamics and pharmacokinetics
14.	Undesirable drug reactions
15.	Independent work on the section "General pharmacology"
16.	Section 4. Means affecting the functions of executive bodies and tissue exchange processes
17.	Means affecting the respiratory system.
18.	Means affecting the digestive organs
19.	Vitamin preparations.
20.	Acids and alkalis.

21.	Enzyme preparations Vitamin preparations.
22.	Section 5. Anti-inflammatory, anti-allergic and immunotropic agents
23.	Anti-inflammatory, anti-allergic and immunotropic agents
24.	Boundary control - control work No. 3 on the section "Anti-inflammatory, anti-allergic and immunotropic agents"
25.	Independent work on the section "Anti-inflammatory, anti-allergic and immunotropic agents"
26.	Section 6. Antimicrobial and antitumor agents
27.	Antimicrobial agents. Principles of antibacterial therapy
28.	Agents affecting protein synthesis and ribosomal
29.	Agents affecting protein synthesis (aminoglycosides, macrolides, lincosamides, tetracyclines, chloramphenicol)
30.	Anti-tuberculosis and anti-spirochete agents
31.	Antifungal agents.
32.	Antiprotozoal agents. Antiprotozoal and anthelmintic agents.
33.	Anthelmintic agents

List of main and additional literature:

Main literature:

Rang and Pharmacology. James M. Ritter, 2020

Additional literature:

1. Kukes V.G. Clinical pharmacology: Textbook GEOTAR-MEDIA 2014
2. Lawrence D.R., Bennett P.N., Brown M.J. Clinical pharmacology: Textbook Medicine 2012
3. Begg E. Clinical pharmacology: textbook M.: BINOM. Laboratory of Knowledge 2004

Internet resources:

https://drive.google.com/drive/u/2/folders/1sqS1y1qz2VYg-ZS7l0m56f8SCpm8aSK1
www.icp.org
www.rlsnet.ru
www.drugs.com
www.medscape.com
http//www.edu.ru
http//www.medicina.ru
http//www. infectology.ru
http //www.journals. uchicago.edu/JAD/home.html

Monitoring and evaluation of learning outcomes

The content of the rating system for assessing student performance

The rating assessment of students' knowledge in each academic discipline, regardless of its total labor intensity, is determined on a 100 (one hundred) - point scale and includes current, boundary, intermediate and final control.

The distribution of rating scores between types of control is established in the following ratio (according to the table of the score-rating system of assessments):

Form of control				
current (CC)*	boundary control (BC)**	mid-term exams (MC)***	Final /exam (FE)	Discipline Rating (RD)
0-100 points	0-100 points	0-100 points	0-100 points	0-100 points, with the translation of points into a letter designation

Note:

* ТК$(middle) = \frac{\sum_1^n \ \times point}{\sum_1^n}$, where n is the number of types of classroom and extracurricular work of students in the discipline;

**РК $(middle) = \frac{\sum_1^n \ credit \times point}{\sum_1^n \ credits}$, where n is the number of modules (credits) in the discipline;

***ПК $(middle) = \frac{\sum_1^n \times point}{\sum_1^n}$, where n is the number of intermediate controls (2 controls per semester: in the middle and at the end of the semester) by discipline;

****ИК – examination conducted at the end of the study of the discipline

;

*****РД = $\frac{\text{ТКср+РКср+ПКср+ИК}}{4}$, the final rating of the results of all types of control at the end of the discipline;

GPA= $\frac{\sum_1^n \times \text{балл}}{\sum_1^n}$ where, n is the number of disciplines in the semester (for the past period of study).

A student who has not passed the current, boundary and intermediate controls to the final control (exam) is not allowed.

The current control is carried out during the period of classroom and independent work of the student on time according to the schedule, at the end of the study of the discipline, the average score of the current control (CC) is calculated**.** *Forms of current control can be*:

- testing (written or computerized);
- performance of individual homework assignments, abstracts and essays;
- student's work in practical (seminar) classes;
- various types of colloquia (oral, written, combined, express, etc.);
- control of performance and verification of reporting on laboratory work;
- visiting lectures and practical (seminar, laboratory) classes;
- Incentive rating (up to 10 points).

Other forms of current monitoring of results are also possible, which are determined by the teachers of the department and recorded in the work program of the discipline.

The frontier control is carried out in order to determine the results of the student's development of one credit (module) as a whole. *Frontier control* should be carried out only in writing, at the end of the study of the discipline, the average score of boundary control (BC) is calculated. As forms *of frontier control* of the training module, you can use:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

Intermediate control (mid-term exams) is carried out in order to check the completeness of knowledge and skills in the material in the middle and end of the semester (2 times per semester) of studying the discipline, by the end of the study of the discipline, the average score of intermediate control (PCsr) is calculated, *forms of intermediate control (mid-term exams) can be:*

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

The final control is carried out during the session, by conducting an exam, it can be carried out in the following forms:

- testing (including computer testing);
- written exam (ticketing system).

Correspondence of the point-rating system of assessments used by the institute and the assessments of the European system for the transfer of credit units, labor intensity (ECTS)

Grade						Criterion
System of letters	digital system	Traditional system	Points (%)	Scored points (max - 100)	Evaluation by discipline without an exam	

A	4	5	95-100	95-100	Credited/ passed	"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic and additional literature on the discipline
A-	3,67		90-94	90-94		"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic literature on the discipline, but is not familiar with additional literature
B+	3,33	4	85-89	70-89		"Good" - exhibited to a student who has shown a systematic and comprehensive knowledge of the educational material, able to independently replenish and update this knowledge in the course of training, performing practical tasks, familiar with the main literature on the discipline
B	3,0		80-84			"Good" is given to a student who has shown a systematic and comprehensive knowledge of the educational material, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
B-	2,67		75-79			"Good" - is given to a student who has shown the systematic nature of knowledge in the discipline, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
C+	2,33	3	70-74			"Satisfactory" - is given to a student who does not have a systematic nature of knowledge in the discipline, who is not capable of independently replenishing and updating knowledge in the course of further education, performing practical tasks with errors
C	2,0		65-69	50-69		"Satisfactory" - is given to a student who made mistakes in completing assignments, but who has the necessary knowledge to eliminate them under the guidance of a teacher
C-	1,67		60-64			"Satisfactory" - is set to a student who made errors in the performance of tasks, but who has the possible knowledge to eliminate them under the guidance of a teacher
D+	1,33		55-59			"Satisfactory" - is set to a student who made errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
D-	1,0		50-54			Satisfactory" - is given to a student who has made significant errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
FX	0,5	2	25-49	Less of 50	not credited/not passed	"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them
F	0		0-24			"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them, even under the guidance of a teacher

Academic achievement requirements:

Attendance by students of all classroom classes without delay is mandatory.
In case of absence, classes are worked out in the order established by the dean's office.
If there are three passes, the teacher has the right not to allow the student to attend classes until the issue is administratively resolved.
If the absence of classes is more than 20.0% of the total number of classes, the student automatically enters the summer semester.

Note to the student:

- ✓ regularly review lecture material;
- ✓ Do not be late and do not miss classes;
- ✓ work off missed classes if you have permission from the dean's office;
- ✓ Actively participate in the classroom (individually and in groups;)
- ✓ timely and fully complete homework assignments;
- ✓ submit all assignments within the time specified by the teacher;
- ✓ independently study the material in the library and at home;
- ✓ timely and accurately fulfill the tasks of the teacher, individual tasks for the IWS to achieve learning outcomes;
- ✓ to master the basic and additional literature necessary for the study of the discipline;
- ✓ performing tasks, the student should not copy or reproduce the work of other students, scientists, practitioners, plagiarism;
- ✓ develop their intellectual and oratory skills;

In case of non-compliance with the requirements of the Memo, the student will be penalized in the form of deducting points (one point for each violated item).

If the requirements of the Memo are fully met, the student is encouraged in the form of an additional 10 points to the final control in the discipline.

Academic Integrity, Conduct and Ethics Policy:

- turn off your cell phone during class;
- Be polite;
- respect other people's opinions;
- formulate objections in the correct form;
- do not shout or raise your voice in the audience;
- independently complete all semester assignments;
- Eliminate plagiarism from your practice;

Methodical instructions.

It is recommended to organize the time required to study the discipline as follows:

When preparing for a practical lesson, you must first read the abstract with the teacher's explanations.

When performing exercises, you must first understand what you want to do in the exercise, then proceed to its implementation.

Literature work. The theoretical material of the course becomes more understandable when books are studied in addition to the abstract. After studying the main topic, it is recommended to perform several exercises.

Preparation for boundary and intermediate controls. In preparation for the boundary and intermediate control, it is necessary to study the theory: the definitions of all concepts before understanding the material and independently do several exercises.

Independent work of students is organized on all studied topics of each section. Independent work is carried out in the form of:

- work in Internet sites;
- work with basic and additional literature;
- fulfillment of written assignments;
- preparation of reports, abstracts, tables and posters on