

SYLLABUS

INTERNATIONAL EUROPEAN
UNIVERSITY



**SCHOOL OF
MEDICINE**

Pharmacology

2021



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Discipline 

 Pharmacology

Teacher 



Teacher profile 



Consultations:

Eye consultations  Third Tuesday of the month from 15:00 to 16:00

Online consultations  Third Wednesday of the month from 15:00 to 16:00

Contact Phone 



E-mail 



Discipline page 



| Summary control form | final test | diff test | exam |
|----------------------|------------|-----------|------|
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1 Short abstract of the discipline

The program in the discipline "Pharmacology" was compiled for students under the educational and professional program "General Medicine", the second (master' degree) level of higher education in the specialty 222 "Medicine", the field of knowledge 22 "Health Care", qualification "Master of Medicine. Doctor"

2 Prerequisite for studying the discipline

It is based on medical biology, medical physics, medical chemistry, biological and bioorganic chemistry, normal and pathological physiology, latin language.

3 The purpose and objectives of the discipline

The purpose of teaching the discipline "Pharmacology" is to form students theoretical knowledge and acquire practical skills on the basic principles of justification of rational and safe for human health use of medicines for the purpose of treatment and prevention of diseases. independent preparation of pharmacotherapy schemes and their subsequent implementation.

The main tasks of studying the discipline "Pharmacology" are

Providing students with theoretical knowledge on determining the group affiliation of medicines, their pharmacokinetics, pharmacodynamics, manifestations of possible side effects, symptoms of overdose, measures that prevent the occurrence and contribute to the elimination of unwanted reactions; Substantiation of the main indications for prescribing and interaction with other medicines, and acquiring practical skills in prescriptions for drugs in various dosage forms

4 Learning Outcomes

PLO 8.. Determine the tactics of emergency medical care on the basis of a diagnosis of an emergency (on the list 3).

PLO 14. Determine the source and/or location of the necessary information depending on its type; receive the necessary

information from a certain source; process and analyze the received information.

PLO 24. Adhere to the requirements of ethics, bioethics and deontology in its professional activities.

PLO 25. To organize the necessary level of individual safety (own and persons of which cares) in case of typical dangerous situations in the individual field of activity.

5 ECTS Loans

6 credits / 180 academic hours

6 Structure of discipline

| Theme Titles | Number of hours | | |
|--------------|-----------------|-------------------|---------------------------------|
| | Lecture | Practice sessions | Independent work of the student |

V SEMESTER

Section I. Medicinal formulation.



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Structure of discipline

| Theme Titles | Number of hours | | |
|--|-----------------|-------------------|---------------------------------|
| | Lecture | Practice sessions | Independent work of the student |
| 1. Basic provisions of the Law of Ukraine "On medicines". Introduction to the drug formulation. Solid dosage forms. | | 2 | 2 |
| 2. Soft dosage forms: classification, rules of discharge, ways of administration and specialization. Liquid dosage forms. Solutions for external use: classification, rules of discharge, ways of introduction and features of use. | | 2 | |
| 3. Liquid medicinal forms (infusions, decoctions, emulsions, mixtapes, infusions, liquid extracts, novogalene preparations). Rules of writing, input paths. Medicinal forms for : requirements for injection solutions, rules of discharge, methods of administration and features of use. | | 2 | |
| Section II. | | | |
| Means affecting the central and peripheral nervous system. | | | |
| 4. Drugs that affect the transmission of arousal in cholinergic synapses. Cholinergic agents that affect M-N cholinereceptors. Anticholine-stemming agents. Cholynesterase reagents. | 1 | 2 | 2 |
| 5. Cholinergic agents that selectively perform on M-cholinereceptors. M- cholinomimetics. M-cholinoblocking agents. | 0.5 | 2 | 2 |
| 6. Pharmacology of medicines that selectively act on H-cholinereceptors. H-cholinomimetics. H-cholinoblocking Tools. | 0.5 | 2 | 2 |
| 7. Pharmacology of medicines affectinterplication in adrenergy synapses: adrenaline, sympathomimetics, anti-nuclear medicines, sympathizers. | 1 | 2 | 4 |
| 8. Tools used for general anesthesia. Locally anesthetic drugs. | | 2 | 3 |
| 9. Pharmacology and toxicology of ethyl alcohol and drugs for the treatment of alcoholism. Sleeping pills. Antiepileptic, antiparkinsonal Tools. | | 2 | 4 |



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Structure of discipline/структура дисципліни

| Theme Titles | Number of hours | | |
|---|-----------------|-------------------|---------------------------------|
| | Lecture | Practice sessions | Independent work of the student |
| 10. Pharmacology: analgesics. Substances that cause addiction. | 1 | 2 | 4 |
| 11. Psychotropic drugs with depressing type of action: antipsychotics, tranquilizers, sedative medicines. | 1 | 2 | 4 |
| 12. Psychostimulants. Antidepressants. Means used in bipolar diseases and SPA. Means that affect the serotonergic system. | 1 | 2 | 6 |
| Section III. Means that affect the function of executive bodies and metabolism. | | | |
| 13. Pharmacology of medicines that affect the function of the respiratory system. Medicines used for treatment of bronchial asthma and pulmonary edema. | 1 | 2 | 6 |
| 14. Diuretics. Pharmacology of drugs that reduce the content of uric acid in the body. Means that affect the tone and decreasing activity of myometrium. | | 2 | 4 |
| 15. Medicines used in coronary insufficiency. Circulatory. Antiatherosclerotic drugs. | 1 | 2 | 2 |
| SEMESTER VI | | | |
| 16. Antihypertensive agents. Antiarrhythmic agents. | 2 | 2 | 4 |
| 17. Means used to treat heart failure. | 2 | 2 | 4 |
| 18. Drugs that affect the function of the digestive system (means that affect appetite; means that regulate the secretion of the gastric glands; gastroprotectants, agents that affect the area of the gastroenteroid. Feature pancreas; cholelitholytic and means that affect the motility of the gastrointestinal tract). | 2 | 2 | 4 |
| 19. Pharmacology of means affecting hematopoiesis. | 1 | 2 | 2 |
| 20. Pharmacology of the means affecting the blood coagulation system. | 1 | 2 | 2 |



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Structure of disciplinary structure of the discipline

| Theme Titles | Number of hours | | |
|---|-----------------|-------------------|---------------------------------|
| | Lecture | Practice sessions | Independent work of the student |
| 21. Preparations of the hypothalamus, pituitary gland, thyroid gland. Antithyroid drugs. Insulin preparations and oral sugar-reducing drugs Tools. | 1 | 2 | 4 |
| 22. Preparations of adrenal cortex hormones. Sex hormone preparations and anabolic steroids. | 1 | 2 | 2 |
| 23. Anti-inflammatory drugs. Treatment of rheumatoid arthritis. Antiallergic and immunotropic drugs. | 2 | 2 | 4 |
| Section IV. Antibacterial middlemen. | | | |
| General pharmacology. | | | |
| 24. Pharmacology and antibiotics 1 (Pharmacology of beta-lactam antibiotics). | 1 | 2 | 2 |
| 25. Pharmacology of antibiotics 2 (Pharmacology of macrolides, lincosamides, tetracyclines, aminoglycosides, cyclic polypeptides). | 1 | 2 | 2 |
| 26. Sulfonamide drugs. Synthetic antimicrobial agents of various chemical structure. Pharmacology of fluoroquinolones. | | 2 | 2 |
| 27. Pharmacology of TUBE medicines. | | 2 | 4 |
| 28. Antispyroketosis, antiprotozoal, antifidibkovite anthelmintic drugs. | | 2 | 4 |
| 29. Antiviral preparations. Antiseptic and disinfectant drugs. Pharmacology of calcium, potassium and sodium drugs. Control pharmacology testing for test tasks of the "Krok-1" type. | | 2 | 6 |
| 30. Pharmacology of antitumor medicines. | 2 | 2 | 6 |
| 31. Toxicology. Main principles of treatment of acute poisoning with drugs and poisons. | | 2 | 4 |
| 32. General pharmacology. Pharmacokinetics. Pharmacodynamics. Mechanisms of action of drugs. | | 2 | 4 |
| TOTAL HOURS: | 24 | 88 | 68 |



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7 Signs of discipline

| Term of teaching | Semester | International disciplinary integration | Course of the year (training) | Cycles: General Training/ Training/ Free Choice |
|------------------|----------|--|-------------------------------|---|
| 1 pik | V, VI | Tak | 3 kypc | General Training Cycle |

8 Rating system and requirements

The current success of students is estimated on a 4-point scale (2; 3; 4; 5) at each practical level, taking into account the approved evaluation criteria for the relevant discipline. The student must receive an assessment on each topic for further conversion of grades into scores on a multi-point (200-point) scale.

Evaluation criteria for current academic activities:

Excellent ("5") – the student correctly answered 90-100% of A-format tests (from the "Krok-2" database).

Good ("4") - the student correctly answered 70-89% of tests format A. Has the necessary practical skills and techniques for their implementation to the extent exceeding the required minimum.

Satisfactory ("3") - the student correctly answered 50-69% of tests format A. Has only a mandatory minimum of research methods.

Unsatisfactory ("2") - the student correctly answered 50% of the tests format A. During the response and demonstration of practical skills makes significant, gross mistakes.

Evaluation of students' independent work on preparation for classroom practical classes is carried out during the current control of the topic at the appropriate classroom.

Semester scoring is rated on a two-point scale (enrolled/not counted) and on a 200-point scale by determining the average arithmetically for each practice session on a 4-point scale and its subsequent conversion into a 200-point scale. The minimum number of points that an applicant must score is 120.

Final control carries out a controlling function, is carried out in order to assess the results of training at a certain educational qualification level or at some of its completed stages. control take into account the results of passing all types of educational work in accordance with the structure of the work program.

<https://ieu.edu.ua/docs/rate-of-study.pdf>

9 Conditions of admission to final control

Students who have completed all types of work, tasks provided by the curriculum for a semester in accordance with the academic discipline are admitted to semesterfinal control, visited all classes provided for by the curriculum, wrote and passed the medical history and have an average score for the current academic activity of at least "3" (72 points and on a 120-point scale).

<https://ieu.edu.ua/docs/rate-of-study.pdf>

10 Discipline policy

The policy of academic discipline is determined by the requirements that scientificpractical employees present to the applicants in the study of clinical discipline.

The condition for a successful educational process is the personal observance of the rules of conduct adopted by each student of a higher educational institution both at the university and in society.

The student must come to class on time, be dressed in an academic medical uniform (white robe or surgical suit). The student must adhere to the schedule of the educational process, come to classes prepared on the topic of the lesson.



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10 Discipline policy

During the class, the student should not leave the classroom without the permission of the teacher; use during classes mobile phone and other means of communication and obtaining information without the permission of the teacher, engage in third-party activities, distract other students. When writing different types of works, the student must adhere to the rules of academic integrity.

The teacher must adhere to the implementation of the educational and thematic plan, objectively evaluate the knowledge and skills of students. During the educational process, the teacher should remember about anti-corruption measures and not conduct corruption activities.

11 Policy on skipping classes and completing tasks after the deadline

The student, who, for good reasons, confirmed documented, was not subject to the current control of the masses the right to undergo current control within two weeks after returning to study.

A student who was absent from classes without good reason, did not participate in current control measures, did not eliminate academic debt, is not allowed to final semester control of knowledge in this discipline, and on the day of passing the exam in the examination information, the scientific and pedagogical staff is assessed "unacceptable". Re-preparation of a differentiated test in the discipline is appointed subject to the implementation of all types of educational, independent (individual) work provided for by the working curriculum of the discipline and is carried out in accordance with the schedule of liquidation of academic debt approved by the Director.

<https://ieu.edu.ua/docs/050.pdf>

12 Academic Integrity Policy

Participants of the educational process are guided by the principles of academic integrity

<https://ieu.edu.ua/docs/011.pdf>

13 Recommended sources of information

Basic:

1. Pharmacology: Textbook for students of medical faculties / I.S. Chekman, N.O. Горчакова, Л.І. Cossack and others. / 4th edition - Vinnytsia .: New book, 2019. 784 p.
2. Skakun MP, Posokhova KA Pharmacology: Textbook, Ternopil: Ukrmedknyha, 2019. 740 p.
3. Pharmacology: a textbook for medical students. and fatigue. faculties of higher medical educational institutions / Chekman IS, Bobyrev VM, Kresyun VY [etc.]; for order. Chekman IS - Vinnytsia: Nova Kniga, 2020. - 427 p .: ill.
4. Drogovoz SM, Shchokina KG Pharmacology on the palms, Kharkiv: Pleiades, 2019. 112 p.

Additional:

1. Kaplan USMLE Step 1 Lecture Notes 2018 Pharmacology. Kaplan Medical, 2018, 321 p.
2. Drogovoz SM Pharmacology pharmacology to help a doctor, pharmacist, student: Textbook, X .: Publishing Center "KHAI", 2012. 480 p.
3. Oleshchuk OM, Posokhova KA Fundamentals of drug formulation: textbook. way. Ternopil: TSMU, 2019. 92 p.
4. Skakun MP Fundamentals of clinical epidemiology and evidence-based medicine: Textbook, Ternopil: TSMU, 2008. 372 p.
5. "Pharmacology - visually" (Pharmacology in tables, diagrams and figures) Textbook, Drogovoz SM, Oleshchuk OM, Khomenko VM etc. Kharkiv: 2021. 204 p.



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Recommended sources of information

6. Lippincott illustrated reviews: Pharmacology. [edited by] Karen Whalen; collaborating editors, Carinda Feild; Rajan Radhakrishnan. Seventh edition. 7th ed., 2019.
7. Basic and Clinical Pharmacology, 12th edition, B.G. Katzung (editor), The McGraw Hill Companies, 2012.
8. Posokhova KA, Viktorov OP Antibiotics (properties, application, interaction): Textbook, Ternopil: TSMU, 2005. 296 p.
9. Samura B.A. General pharmacokinetics: a monograph. Ternopil: TSMU, 2009. 356 p.
10. Stepanyuk GI Pharmacology. Course of lectures, Vinnytsia, 2011. 373 p.

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Tips for successful training on the course

If you want to be successful in this discipline, then you must:

1. Be active, persistent, inquisitive, consistent
2. Be tidy and polite
2. Systematically prepare for practical classes
3. Perform tasks for independent work and protect them in the classroom.
3. Attend the class in a medical gown
4. Independently solve tests and tasks, actively work in the classroom.
5. Prepare presentations and crossword puzzles in the discipline. Participate in student scientific conferences and engage in research work in scientific circles of the department.

I wish you perseverance, dedication and motivation to study. . and thensuccess will come to you!
Don't forget your medical gowns!