



MINISTRY OF HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY
Faculty of Pharmacy
Department of Social Pharmacy

SOCIAL PHARMACY

(name of academic discipline)

**WORK PROGRAM
of educational component**

training for _____ second (master's) level _____
(Higher Educational Level Name)
field of knowledge _____ 22 Healthcare _____
(Code and Knowledge Field Name)
in specialty _____ 226 Pharmacy, Industrial pharmacy _____
(Code and Specialty Name)
of educational program _____ Pharmacy _____
(Educational Program Name)
specialization _____ _____
(Specialization Name)

The work program of the educational component Social Pharmacy in specialty 226 Pharmacy, Industrial pharmacy of educational program Pharmacy specialization _____ for applicants for higher education 5 year of study.

Educational course team:

KOTVITSKA Alla, professor of the Social Pharmacy department, Doctor of Pharmacy, Professor;

VOLKOVA Alina, head of the Social Pharmacy department, Ph.D., Associate Professor;

KUBARIEVA Inna, Associate Professor of the Social Pharmacy department, Ph.D., Associate Professor;

KORZH Yuliya, Associate professor of the Social Pharmacy department, Ph.D., Associate Professor;

TERESHCHENKO Lyubov, associate professor of the Social Pharmacy department, Ph.D., Associate Professor;

SURIKOVA Iryna, assistant professor of the Social Pharmacy department, Ph.D.

Work program has been considered and approved at the Social Pharmacy Department Meeting
Record from "29" August 2022 year №1

Head of the Department

- 
(Signature)

assoc.prof. Alina VOLKOVA
(name and surname)

The working program was approved at the meeting of the profile Methodical Commission on economic and managerial disciplines

Record from «30» August 2022 year № 1

Head of Specialized Committee


(Signature)

prof. Alla NEMCHENKO

1. Description of the educational component

The language of the study: English

Status of the educational component: mandatory

Prerequisites for studying the educational component:

- the course is based on the study of such courses as ethics and deontology in pharmacy, organization and economics of pharmacy, clinical pharmacy and is integrated with such a discipline of the NUPh curriculum as pharmaceutical law and legislation, pharmacoeconomics;
- the discipline is the basis for the study of public administration and regulation in the pharmaceutical industry, which involves the application of knowledge in the process of further education and professional activities;
- lays the foundations for students to study the systematic analysis of the activities of pharmaceutical institutions, provides for the application of knowledge gained in the process of further study and professional activities, lays the foundations of professional culture, cultivates pride and a sense of need for pharmaceutical specialty.

Information content of the educational component. 3 ECTS credit 90 hours are assigned to the study of the educational component.

2. Objectives and tasks of the educational component

The purpose of teaching the educational component «Social Pharmacy» is the formation of systematic knowledge on socio-economic aspects of the organization of pharmaceutical support at the macro- and microeconomic levels, as well as the formation of professionally important skills to implement socio-economic mechanisms to ensure access to pharmaceutical care.

The **main tasks** of the course "Social Pharmacy" are the formation of students' necessary knowledge, skills and abilities on: theoretical foundations of social policy in providing the population with medicines (drugs) in Ukraine and abroad; use of the legal framework for regulating the social and economic aspects of pharmaceutical activities; conducting a comprehensive analysis of the main socio-economic indicators of the effectiveness of pharmaceutical supply of the population, drawing conclusions and creating forecasts; adherence to the basic principles of pharmaceutical ethics in the conduct of professional activities by specialists in the pharmaceutical sector of health care.

3. Competence and planned educational outcomes

Educational component «Social Pharmacy» ensures the acquisition of applicants for higher education the following competences:

• *integral* :

Ability to solve typical and complex specialized tasks and critically comprehend and solve the practical problems in the professional pharmaceutical and/or research and innovation activity using provisions, theories and methods of the fundamental, chemical, technological, biomedical, socio-economic science; integrate knowledge and solve complex issues, formulate judgments in the presence of incomplete or limited information, clearly and unambiguously to convey their conclusions and use their knowledge, reasonably substantiating them, to professional and non-professional audience.

• *general* :

GC 1. Ability to act socially responsible and civic conscious.

GC 2. Ability to apply knowledge in practical situations, make reasonable decisions.

GC 4. Ability to abstract thinking, analysis and synthesis, to learn and be modernly trained.

GC 5. Ability to show initiative skills and entrepreneurship.

GC 6. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Ability to adapt and act in a new situation.

GC 12. Ability to conduct research at the appropriate level.

- *special (professional, subject):*

PC 1. Ability to conduct sanitary and educational work among the population to prevent common diseases, prevent dangerous infectious, viral and parasitic diseases, as well as to facilitate the timely detection and maintenance of adherence to treatment of these diseases in accordance with their medical and biological characteristics and microbiological characteristics.

PC 11. Ability to analyze socio-economic processes in Pharmacy, forms, methods and functions of the pharmaceutical supply system and its components in world practice, indicators of need, efficiency and availability of pharmaceutical care in terms of health insurance and reimbursement of the cost of medications.

Integrative final program learning outcomes (PLO), the formation of which is facilitated by the educational component:

PLO 4. To demonstrate the ability to independently search, analyze and synthesize information from various sources and use these results to solve typical and complex specialized tasks of professional activity.

PLO 5. To position your professional activities and personal qualities in the pharmaceutical labor market; to formulate the purposes of own activity taking into account public and industrial interests.

PLO 7. To perform professional activities using creative methods and approaches.

PLO 12. To analyze the information obtained as a result of scientific research, summarize, systematize and use it in professional activities.

PLO 13. To carry out sanitary and educational work in professional activity in case of outbreaks of infectious, viral and parasitic diseases.

PLO 23. To take into account the data on socio-economic processes in society for the pharmaceutical provision of the population, determine the effectiveness and availability of pharmaceutical care in terms of health insurance and reimbursement of the cost of medicines.

PLO 25. To promote health, including disease prevention, rational use and use of medicines. To perform your professional duties in good faith, comply with the law on the promotion and advertising of medicines. To have psychological communication skills to build trust and understanding with colleagues, doctors, patients, consumers.

As a result of studying the course, the applicant for higher education will be able to *know*:

- methods of realization of knowledge in the decision of practical questions;
- current trends in the industry and analyze them;
- structure and features of professional activity;
- basic mechanisms of state regulation of pharmaceutical activity;
- principles of organization of pharmaceutical assistance to the population;
- organizational structure of the pharmaceutical supply system, its goals, objectives and functions;
- organizational and methodological principles for determining the availability of pharmaceutical care to the population, its types and factors of influence;
- basic mechanisms for ensuring the availability of pharmaceutical care to the population;
- medical and social indicators of society development;
- indicators of the need for pharmaceutical care and approaches to determining the degree of its satisfaction;
- modern principles for providing pharmaceutical care to socially vulnerable groups: children, women, the elderly, patients with severe and orphan diseases;
- legal and ethical norms of interaction of the subjects of the pharmaceutical supply system;
- basics of social policy of the state, its mechanisms, methods, efficiency indicators;
- organizational structure, mechanisms of functioning of systems of reimbursement of cost of pharmaceutical care in world practice;
- basics of functioning and directions of improvement of pharmaceutical supply systems in foreign practice;

be able to:

- use professional knowledge to solve practical situations;
- to analyze professional information, make informed decisions, acquire modern knowledge;
- carry out professional activities that require updating and integration of knowledge;
- to use normative-legal acts regulating pharmaceutical activity in Ukraine and abroad;
- determine the indicators of physical and economic accessibility of pharmaceutical care to the population in the dynamics of the years, on a territorial basis and at the level of the business entity;
- to analyze the impact of key factors on the indicators of physical and economic affordability of pharmaceutical care;
 - to analyze medical and social indicators of development of certain groups of the population, regions and society as a whole;
 - to determine the indicators of the need for the amount of pharmaceutical care for patients with certain nosologies, as well as in health care institutions and their structural units;
 - to analyze the effectiveness of the costs of pharmaceutical care in health care facilities using clinical and economic research methods;
 - to conduct a comparative analysis of the costs of pharmaceutical care under government programs with the amount of costs in the domestic pharmaceutical market;
 - to analyze the consumption of drugs in the dynamics of the years, on a territorial basis, individual groups of drugs and drugs using the methodology of PBX / DDD, which is recommended by the WHO;
 - to conduct a pharmaco-economic analysis of the effectiveness of pharmaceutical care for socially vulnerable groups and patients with severe and orphan diseases;
 - determine the amount of pharmaceutical care in the system of reimbursement of its value;
 - to conduct sociological and psychological studies of the state of pharmaceutical supply of the population and the degree of its effectiveness;
 - compile questionnaires, questionnaires and process data to determine the social, economic, ethical and psychological factors of the pharmaceutical supply system;

posses:

- methods and techniques of analysis to determine the general trends in the pharmaceutical sector of health care: methods of comparative, documentary and meta-analysis (analysis of the legal framework, study of statistics), inductive-deductive methods, graphical methods, methods of descriptive and abstract modeling and generalization (formulation of conclusions, recommendations and proposals), the method of self-control in learning
 - skills of using information databases (State Register of Medicines, others) when conducting medical and pharmaceutical research;
 - skills for critical analysis of retrospectives, current status and forecasting prospects for the development of the pharmaceutical sector of the health sector.

4. The educational component structure

Names of content modules and topics	The amount of hours				
	full time study				
	the whole amount	including			
		l	p.l.	sem.	self-study
Content module 1. Theoretical bases and directions of realization of social policy in providing the population with medicines					
Topic 1. International experience of formation and development of social pharmacy.	6,5	0,5	2	-	4
Topic 2. The concept of social pharmacy as a component of a modern and effective pharmaceutical sector of health care	6,5	0,5	2	-	4
Topic 3. Rational pharmacotherapy as the main element of effective and safe pharmaceutical supply	9	1	4	-	4

Topic 4. Pharmacoepidemiology as a component of social pharmacy	10	2	4	-	4
Topic 5. Socially effective mechanisms for ensuring the availability of pharmaceutical care to the population	9	2	3	-	4
Control of MR 1	5	-	1	-	4
The whole amount of hours for the content module 1	46	6	16	-	24
Content module 2. Moral and ethical and legal bases of work of pharmaceutical workers. Legal bases and information support of pharmaceutical activity					
Topic 6. Quality management of pharmaceutical supply.	7	1	2	-	4
Topic 7. The role of the pharmaceutical worker at the present stage of development of pharmacy .	9	1	2	-	6
Topic 8. Modern information systems and informatization of health care	11	1	4	-	6
Topic 9. World experience in health care and pharmacy reform. Health literacy as one of the key elements of an international health strategy.	10	1	3	-	6
Control of MR 2	5	-	1	-	4
The whole amount of hours for the content module 2	42	4	12	-	26
Semester credit	2	-	2	-	
The whole amount of hours for the course	90	10	30	-	50

5. Contents of the educational component

Content module 1. Theoretical bases and directions of realization of social policy in providing the population with medicines

Topic 1. International experience of formation and development of social pharmacy.

Historical aspects of the formation and development of social pharmacy. Social pharmacy: origin, formation and prospects of development. Social pharmacy as an interdisciplinary and interdisciplinary science. Relationship of social pharmacy with other disciplines. Methods and objects of research in social pharmacy..

Topic 2. The concept of social pharmacy as a component of a modern and effective pharmaceutical sector of health care.

The health care system as an important component of the social sphere. Health care reform strategy. Characteristics of the pharmaceutical sector of health care. System of indicators of socially effective pharmaceutical support

Topic 3. Rational pharmacotherapy as the main element of effective and safe pharmaceutical supply.

System of rational use of drugs: principles, purpose, tasks, functions, mechanisms of regulation and directions of realization. Characteristics of the main elements of standardization of medical and pharmaceutical information. Pharmaceutical support for palliative patients. Characteristics of the legal framework for the organization and provision of medical and pharmaceutical care to palliative patients. The main positive features and problematic issues of pharmaceutical support of palliative patients. Pharmaceutical support for patients with rare (orphan) diseases. Features of the functioning of the system of pharmaceutical support of socially vulnerable segments of the population.

Topic 4. Pharmacoepidemiology as a component of social pharmacy.

Fundamentals of pharmacoepidemiology: dynamics, trends. Pharmacoepidemiological studies and indicators. Organization of the system of statistics in health care. Health status of the population and demographic trends.

Topic 5. Socially effective mechanisms for ensuring the availability of pharmaceutical care to the population.

The concept of availability of pharmaceutical care to the population. Indicators of socio-economic accessibility of medicines to the population. Reimbursement of the cost of pharmaceutical care to the population. General organizational structure of the reimbursement system and pharmaceutical assistance to the population. State programs to ensure the availability of medicines. Public procurement system for medicines. The procedure for providing humanitarian pharmaceutical assistance to the population.

Content module 2. Moral and ethical and legal bases of work of pharmaceutical workers. Legal bases and information support of pharmaceutical activity

Topic 6. Quality management of pharmaceutical supply.

Current international trends in safety and quality of medicines. Pharmacovigilance system. Negative consequences of drug use: types, status, registration, control. Medication errors during the provision of pharmaceutical care. Good prescribing practice: basic provisions, structure, prospects of implementation.

Topic 7. The role of the pharmaceutical worker at the modern stage of development of pharmacy.

Legal regulation of professional activity of pharmaceutical workers. Professional responsibility of pharmaceutical workers. Professional profile in the pharmaceutical sector of healthcare. Pharmaceutical care, pharmaceutical service as the main categories of pharmaceutical supply to the population during the retail sale of medicines. Conflict of interest in the implementation of medical and pharmaceutical activities. Quality standards of pharmaceutical services.

Topic 8. Modern information systems and informatization of health care.

Formation of the e-Health system. Electronic document management in healthcare. E-prescription as an element of informatization of the pharmaceutical industry: legal status, level of implementation, prospects for use. Mobile applications to help patients..

Topic 9. World experience in health care and pharmacy reform. Health literacy as one of the key elements of an international health strategy.

Literacy in health care: concepts, structure, general information. Pharmaceutical literacy. Health literacy as one of the main determinants of health. Approach to medical literacy in the world. Formation of a healthy lifestyle. International and national experience. Health literacy as an important factor in the prevention of non-communicable diseases.

6. Topics of lectures

№	Name of topic	The amount of hours
1	Topic 1. International experience of formation and development of social pharmacy.	1
	Topic 2. The concept of social pharmacy as a component of a modern and effective pharmaceutical sector of health care	
2	Topic 3. Rational pharmacotherapy as the main element of effective and safe pharmaceutical supply	1
3	Topic 4. Pharmacoepidemiology as a component of social pharmacy	2
4	Topic 5. Socially effective mechanisms for ensuring the availability of pharmaceutical care to the population	2
6	Topic 6. Quality management of pharmaceutical supply.	2
	Topic 7. The role of the pharmaceutical worker at the present stage of development of pharmacy.	
7	Topic 8. Modern information systems and informatization of health care	1
8	Topic 9. World experience in health care and pharmacy reform. Health literacy as one of the key elements of an international health strategy.	1
The whole amount of hours		10

7. Topics of seminars

Not provided for in the working curriculum

8. Topics of practical lessons

№	Name of topic	The amount of hours
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1	Topic 1. International experience of formation and development of social pharmacy.	4
	Topic 2. The concept of social pharmacy as a component of a modern and effective pharmaceutical sector of health care	
2	Topic 3. Rational pharmacotherapy as the main element of effective and safe pharmaceutical supply	4
3	Topic 4. Pharmacoepidemiology as a component of social pharmacy	4
4	Topic 5. Socially effective mechanisms for ensuring the availability of pharmaceutical care to the population	4
5	Control of CM1	
6	Topic 6. Quality management of pharmaceutical supply.	4
	Topic 7. The role of the pharmaceutical worker at the present stage of development of pharmacy.	
7	Topic 8. Modern information systems and informatization of health care	4
8	Topic 9. World experience in health care and pharmacy reform. Health literacy as one of the key elements of an international health strategy.	4
9	Control of CM2	
10	Semester credit	2
The whole amount of hours		30

9. Topics of laboratorial lessons

Not provided for in the working curriculum

10. Self-study work

№	Name of topic	The amount of hours
1	Topic 1. International experience of formation and development of social pharmacy.	4
2	Topic 2. The concept of social pharmacy as a component of a modern and effective pharmaceutical sector of health care	4
3	Topic 3. Rational pharmacotherapy as the main element of effective and safe pharmaceutical supply	4
4	Topic 4. Pharmacoepidemiology as a component of social pharmacy	4
5	Topic 5. Socially effective mechanisms for ensuring the availability of pharmaceutical care to the population	4
6	Control of CM1	4
7	Topic 6. Quality management of pharmaceutical supply.	4
8	Topic 7. The role of the pharmaceutical worker at the present stage of development of pharmacy.	6
9	Topic 8. Modern information systems and informatization of health care	6
10	Topic 9. World experience in health care and pharmacy reform. Health literacy as one of the key elements of an international health strategy.	6
11	Control of CM2	4
The whole amount of hours		50

Tasks for self-study work

Preparation of abstracts, presentations, essays, work with educational and methodical literature, lecture notes, Internet - resources.

Execution of tasks in accordance with the topics of the discipline:

1. To generalize the main trends in the development of social pharmacy in the world.
2. Describe the methods and objects of research in social pharmacy.
3. Describe approaches to health care reform and, in particular, the pharmaceutical health sector.
4. Provide a description of the main indicators of socially effective pharmaceutical support.

5. Describe the main elements of standardization of medical and pharmaceutical care.
6. Analyze the legal framework for the organization and provision of medical and pharmaceutical care to palliative patients.
7. Analyze the legal framework for the organization and provision of medical and pharmaceutical care to patients with orphan diseases.
8. Name the features of the functioning of the pharmaceutical supply system for patients in need of social protection.
9. Describe the methods of pharmacoepidemiological research.
10. Give the organizational structure of medical statistics.
11. Define the concepts of "prevalence of diseases" and "morbidity", describe the prevalence and incidence by classes of diseases among the population.
12. Describe the indicators of socio-economic accessibility of medicines to the population.
13. Describe the approaches to the organization of the reimbursement system in international practice.
14. To give the organizational structure of the drug reimbursement system.
15. Give the procedure for providing humanitarian pharmaceutical assistance.
16. Describe current trends in ensuring the safety and quality of drugs in international practice.
17. Get acquainted with Good Prescription Practices.
18. Get acquainted with the quality standards of pharmaceutical services.
19. Provide the structure of obtaining drugs in the pharmacy by electronic prescription.
20. Describe the most common mobile applications of pharmaceutical direction, give their functions for patients.
21. Analyze the data of state statistics on the most common diseases among the population.
22. Develop a questionnaire to assess the level of medical and pharmaceutical literacy among the population and process data based on survey results.
23. Describe the directions of forming a healthy lifestyle in the world.

11. Criteria and evaluation order of educational outcomes

During the study of the educational component, all types of student activities are subject to control: current (at each lesson and when performing tasks for independent work of students), intermediate (checking the mastery of content modules). Current control is carried out at each practical lesson in accordance with the specific objectives of the topic, during the individual work of the teacher with the applicant for higher education for those topics that the applicant develops mainly independently.

Current control is carried out at each practical lesson in accordance with the specific objectives of the topic, during the individual work of the teacher with the student for those topics that the student develops independently.

Modular control is a diagnosis of assimilation by the applicant of higher education of the module material (credit). During the study of the discipline, there are two current controls of content modules.

Rating system for assessing students' knowledge

Ongoing assessment and independent work										
Module 1										
T1	T2	T3	T4	T5	Control of CM 1	T6	T7	T8	T9	Control of CM 2
10		10	10	10	15	10		10	10	15
55						45				
100										

T1, T2 ... T9 – Topics

The current control of content modules (CM1, CM2) totals a **maximum of 100 scores, a minimum of 60 scores.**

Incentive (additional) points: performance of an individual task, participation in competitions, contests, student scientific conferences, active participation in lectures, etc. – up to **10 scores.**

The overall rating of the module (discipline) **does not exceed 100** scores.

The module is considered completed if the applicant has scored **from 60 to 100** scores.

Assessment of current learning activities is carried out at each practical lesson in the form of control of theoretical knowledge, practical skills and abilities.

At mastering of each theme of the content module for current educational activity to applicants of higher education points for all kinds of activity which at the end of studying of the semantic module are summed up are exposed.

The control of content modules (CM) is carried out at the last practical classes of studying the topics of content modules. Only those applicants for higher education who have performed all types of work provided for in the curriculum (missed seminars, lectures, etc.) are allowed to control the CM. The structure of the ticket CM 1: 6 tasks to establish the matching between the term and definition, and 1 practical task (calculation). Control of CM 2 – is student report about actual topic. The sum of points for the study of the CM is the sum of points received by the student during the study of all topics of the content module.

CONTENT MODULE 1

Assessment of current learning activities (conducted at each practical lesson) control of theoretical knowledge, practical skills and abilities. At mastering of each theme of the semantic module 1 for current educational activity to applicants of higher education points for all kinds of activity which at the end of studying of the content module are summed up are exposed. Depending on the number of points scored, a higher education applicant may receive a maximum of 55 points or a minimum of 33 points for studying the content module 1.

The following scoring system is used for each topic of content module 1 (minimum number of points for one topic 6 points, maximum – 10 points):

Assessment of practical skills - students are given from 0 to 5 points:			
Type of task being assessed	System evaluation knowledge, points	Evaluation criteria	
Practical (situational) task	1,5-2,0	The practical task (situational task) is performed by the student independently without errors.	
	0,5-1,0	The practical task was performed independently, however, mistakes were made in the using of legal acts, interpretation of terms, principles of preparation of multimedia materials, etc.	
	0	The student could not perform practical and situational tasks, did not draw up a working journal.	
Assessment of theoretical knowledge, practical skills and abilities - applicants for higher education are given from 0 to 5 points:			
Assessment of theoretical knowledge, practical skills and abilities (written or oral answer)	4,5-5,0	is given to student who at the oral or written answer to a question has revealed comprehensive, systematized, deep knowledge of a program material, is able to interpret the received results competently; demonstrate knowledge of basic and additional literature provided at the level of creative use	
	2,5-4,0	is given to the student, if during the oral or written answer to the question the applicant for higher education revealed complete knowledge of the program material, provided at the level of similar reproduction, but made some insignificant errors	
	1,0-2,5	is given, if during the oral or written answer to the question the student found insufficient knowledge of the main program material, in the amount necessary for further study and work provided by the program at the level of reproductive reproduction.	
	0	is given, if at the oral or written answer to a question the student has found serious gaps in knowledge of the basic material, has made fundamental mistakes.	

The control of CM1 is estimated by the answer of ticket. The structure of the ticket CM 1: 6 tasks to establish the matching between the term and definition, and 1 practical task (calculation). Each correct matching is 1 task is scored 1. The practical (calculation) task is scored minimum 6 maximum 9. Answer

for practical task 2 include making calculations for solving situational task (maximum 6 points) + formulation of conclusions (maximum 3 points). The sum of points for meaningful control CM1 is a maximum of **15** points. Substantive modular control CM1 is considered credited if the applicant has obtained at least **9** points.

CONTENT MODULE 2

Assessment of current learning activities (conducted at each practical lesson) control of theoretical knowledge, practical skills and abilities. At mastering of each theme of the semantic module 1 for current educational activity to applicants of higher education points for all kinds of activity which at the end of studying of the content module are summed up are exposed. Depending on the number of points scored, a higher education applicant may receive a maximum of **45** points or a minimum of **27** points for studying the content module 2.

The following scoring system is used for each topic of content module is the same in a content module 1.

The control of CM 2 is estimated by the student report. The sum of points for meaningful control CM2 is a maximum of **15** points. Substantive modular control CM 2 is considered credited if the applicant has obtained at least **9** points.

The sum of points for the study of CM 2 is the sum of points obtained by the student during the study of all topics of the content module and the compilation of the content module control. The sum of points for meaningful control CM 2 is a maximum of **15** points. Substantive modular control CM 2 is considered credited if the applicant has obtained at least **9** points. The total amount of points for CM 2 is a maximum of **45** points, a minimum of **27** points.

Grade A, B, C, D, E is given only to students who have enrolled in all modules of the educational component. The number of points that the student scored in the discipline is defined as the arithmetic mean of the number of points from the modules of the course.

COURSE EVALUATION SCALE

The sum of points for all types of educational activities	Score ECTS	Score on a national scale
90 – 100	A	Excellent
82-89	B	Good
74-81	C	
64-73	D	Satisfactory
60-63	E	
35-59	FX	Unsatisfactory with the possibility of reassembly
0-34	F	Unsatisfactory with compulsory re-study of the discipline

12. Forms of progress and semester supervision of academic achievements

Semester control is carried out in the form of a semester credit.

13. Teaching course materials

1. Lecture material (multimedia presentations, lecture texts).
2. Plans for practical classes.
3. Questions for independent work of students.
4. Questions for the final module control.
5. Methodical recommendations for practical classes and independent work on the discipline.
6. Ticket pack for control of content modules with standards of answers.
7. Pack of tickets for the final module control with standards of answers.

14. Reading suggestions

The main reading suggestions

1. Lecture material (multimedia presentations, lecture texts)
2. Methodical instructions for practical tasks.

Supplementary reading suggestions

3. Adusumilli PK. Drug related problems: an over view of various classification systems / PK Adusumilli, R Adepu // *Asian Journal of Phamaceutical and Clinical Research*. – 2014, Vol 7, Issue 4 – P. 7 – 10
4. Almarsdottir A.B. Opportunities and challenges in social pharmacy and pharmacy practice research / A.B. Almarsdottir, S. Kaae, J.M. Traulsen // *Research in Social and Administrative Pharmacy*. – 2014. – Vol. 10(1). – P. 252–255.
5. Anderson, C. Social Pharmacy – The Current Scenario / C. Anderson // *Indian Journal of Pharmacy Practice*. – 2008. – Vol. 1 (1). – P. 1–5.
6. Aronson JK. Medication errors: definitions and classification / JK Aronson // *British Journal of Clinical Pharmacology*. – 2009. – № 67(6), – p. 599-604. doi: 10.1111/j.1365-2125.2009.03415.x.
7. CDER. Drug safety priorities. 2015-2016. // FDA. – 40 p. – Режим доступу: <https://www.fda.gov/media/100679/download>
8. Harding G. Defining social pharmacy: It needs its own distinct identity / G. Harding, K. Taylor // *International Journal of Pharmacy Practice*. – 1993 – Vol. 2 (2). – P. 62–63 DOI: 10.1111/j.2042-7174.1993.tb00725.x
9. Karthikeyan M. Systematic Review on Medication Errors/ M. Karthikeyan, T. Balasubramanian, Mohammed Ibrahim Khaleel, Muhammed Sahl, P. A Rashifa // *International Journal of Drug Development and Research*. – 2015. – 7(4). – p. 9-11
10. Kostriba J. Social pharmacy as a field of study in undergraduate pharmacy education / Jan Kostriba, Abdullah Alwarafi, Jiri Vlcek // *Indian Journal of Pharmaceutical Education and Research*. – 2014. – Vol. 48 (1). – P. 6–12.
11. Lebega O. Safety of Medicinal Products in Ukraine: Assessment of the Pharmacovigilance System and its Performance. Submitted to the U.S. Agency for International Development by the Strengthening Pharmaceutical Systems (SPS) Program. Arlington, VA / O. Lebega, J. Nwokike, H. Walkowiak. – Arlington: Management Sciences for Health, 2012. – 123 с.
12. Scahill, S. L. Social Pharmacy: borrowing tools and theories the world over / S. L. Scahill // *Southern Med Review*. – 2011. – Vol. 4 (1). – P. 1. doi : 10.5655/smr.v4i1.78
13. Sheridan Janie. What is social pharmacy? An overview / J. Sheridan // *Japanese Journal of Social Pharmacy*. – 2015. – Vol. 34 (2). – P. 141–45. doi : 10.14925/jjsp.34.2_141.
14. Social pharmacy as a field of study: the needs and challenges in global pharmacy education / M. A. Hassali, A. A. Shafie, M. S. Al-Haddad [et al.] // *Research in Social and Administrative Pharmacy* – 2011. – Vol 7 (4). – P. 415–420. DOI: <http://dx.doi.org/10.1016/j.sapharm.2010.10.003>
15. Sorensen E. W. The concept of social pharmacy / E. W. Sorensen, J. K. Mount, S. T. Christensen // *The Chronic Ill*. – 2003. – Vol. 7(Summer). – P. 12–15
16. Williams D. Medication Errors / D. Williams // *The Journal of the Royal College of Physicians of Edinburgh*. – 2007. № 34 (4). – p. 343-346

16. Electronic resources

1. Державна служба статистики України. Офіційний сайт. [Електронний ресурс]. – Режим доступу: <http://www.ukrstat.gov.ua>
2. Державна установа «Центр громадського здоров'я Міністерства охорони здоров'я України». Офіційний сайт. [Електронний ресурс]. – Режим доступу: <https://www.phc.org.ua>
3. Державний Експертний Центр Міністерства охорони здоров'я України. Офіційний сайт. [Електронний ресурс]. – Режим доступу: <http://www.dec.gov.ua/>
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