MINISTRY OF HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY
DEPARTMENT OF COMMODITY SCIENCE

PHARMACEUTICAL AND MEDICAL COMMODITY SCIENCE
(Course Unit Name)

AMENDMENTS AND CHANGES TO THE WORK PROGRAM of a subject

educational background magister
(Level of Educational Background)

program subject area 1202 - Pharmacy
(Program Subject Area Title and Code)

in specialty 8.12020101 - Pharmacy (5.0)
(Specialty Title and Code)

of educational program Pharmacy
(Educational Program Title)

specialty(ies)
(Educational Program Title)

2017 – 2018 academic year

Amendments and changes to work educational program Pharmaceutical and medical commodity science in specialty 8.12020101 – Pharmacy of educational program Pharmacy____ for the students of 4, 5 year.

Developed by:

___Baranova I. I. prof., Ph.D., prof.___
___Breusova S. V. assist. prof., Ph.D._
___Bespalay J. A. assist., Ph.D._____
___Khalavka M.V. assist., Ph.D._____
(indicate the authors, their positions, degrees and academic titles)

The Amendments and changes to the work program is considered and approved at the meeting of the Department of Commodity Science
Protocol record from «01» September 2017 № 1.

Head of department
of Commodity Science, prof. _____ I. I. Baranova
(Signature) (Name)

Amendments and changes to the work program approved at the meeting of the Profile Methodical Commission on economics and management disciplines.

Protocol Record from «01» September 2017 № 1.

Head of profile committee, prof. _____ A. S. Nemchenko
(Signature) (Name)

1. Description of the discipline (course)

<table>
<tr><th rowspan="2">Indicators</th><th rowspan="2">Specialty,
Educational program,
Educational background</th><th colspan="3">Characteristics
of a subject</th></tr>
<tr><th colspan="2">Intramural Program</th><th>Extramural Program</th></tr>
<tr><td rowspan="3">Total Credits – 4</td><td rowspan="8">Speciality:
_8.12020101 –
Pharmacy_
(Specialty Title and Code)</td><td colspan="3">Compulsory
(at option)</td></tr>
<tr><td colspan="3">Year of educational background</td></tr>
<tr><td colspan="2">4. 5</td><td></td></tr>
<tr><td>Modules – 2</td><td colspan="3">Semester</td></tr>
<tr><td rowspan="2">Thematic Modules – 4</td><td colspan="2">8. 10</td><td></td></tr>
<tr><td colspan="3">Lectures</td></tr>
<tr><td rowspan="2">Total Hours – 120</td><td colspan="2">hours</td><td>hours</td></tr>
<tr><td>11</td><td>2</td><td></td></tr>
<tr><td rowspan="11">Number of weeks of teaching a subject – 32

Weekly hours for intramural program:
classroom – 2.3
individual work of a student – 1.4</td><td colspan="3">Seminar Classes</td></tr>
<tr><td rowspan="5">Educational program:
Pharmacy
(Educational Program Title)</td><td colspan="2">hours</td><td>hours</td></tr>
<tr><td>10</td><td>4</td><td></td></tr>
<tr><td colspan="3">Practical Classes</td></tr>
<tr><td colspan="2">hours</td><td>hours</td></tr>
<tr><td>33</td><td>16</td><td></td></tr>
<tr><td rowspan="5">Educational background
__magisters__
(Level of Educational Background)</td><td colspan="3">Laboratory Practicals</td></tr>
<tr><td colspan="2">hours</td><td>hours</td></tr>
<tr><td colspan="3">Individual Work</td></tr>
<tr><td colspan="2">hours</td><td>hours</td></tr>
<tr><td>21</td><td>23</td><td></td></tr>
<tr><td colspan="3">Type of Control:</td></tr>
<tr><td colspan="2">Credit</td><td>Grade
(Credit)</td></tr>
</table>

Note: 1 ECTS Credit – 30 hours;
teaching load – 36,7 %, CPC – 63,3 % for intramural form
teaching load – %, CPC – % for extramural form

2. Structure of the discipline (subject)

Names of content modules and topics	Hours											
	Full-time Program						External Program					
	Total	including					Total	including				
		Lect.	Sem	Pract	Lab	Ind. Work		Lect	Sem	Pract	Lab	Ind Work
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
THEMATIC MODULE 1. THEORETICAL BASES OF COMMODITY SCIENCE. NORMATIVE DOCUMENTATION. CLASSIFICATION AND CODING OF GOODS. PACKING, MARKING OF MEDICAL GOODS.												
Topic 1. Theoretical bases of commodity science.	2,5	0,5	1	1								
Topic 2. Normative documentation	3,5	0,5	1	2								
Topic 3. Inspection analysis of medical equipment.	2					2						
Topic 4. Classification and Coding of goods.	4	1		3								
Topic 5. Packaging and labelling of medical goods.	6	1	2	3								
Topic 6. Inspection analysis of technical means for traumatology	2					2						
Topic 7. Commodity analysis goods of the pharmacy assortment	4	1		3								
Topic 8. Inspection analysis of tools for survey, endoscopy and introscopy	2					2						
Total under Module 1	26	4	4	12		6						
THEMATIC MODULE 2. BASES OF MATERIOLOGY (METAL, NON-METAL MATERIALS). MEDICAL TOOLS, SUTURE MATERIALS AND ITEMS OF MEDICAL TECHNICS.												
Topic 9. The basis of materiology of goods in pharmacy assortment. Metal materials used in medicine and pharmacy. Inspection analysis of common surgery tools: cutting, clamping, probing and bougienage.	3					3						
Topic 10. Inspection analysis of equipment for stomatology.	3					3						
Topic 11. Inspection analysis of special tools: neuro-surgical, ophthalmologic and otorhinolaryngologic.	3					3						
Topic 12. Inspection analysis of special tools: urological, obstetric-gynecologic.	3					3						
Topic 13. Commodity analysis of rubbers goods and items of care of patients.	6	1	2	3								

Topic 14. Polymeric materials and plastics, which are used in pharmacy.	3					3						
Topic 15. Commodity analysis of suture materials and piercing surgical needles.	4	1		3								
Topic 16. Commodity analysi of instruments and devices for piercings, injections and transfusions.	6	1	2	3								
Topic 17. Commodity analysis of dressing materials and prepared dressing means.	5		2	3								
Topic 18. Ophthalmic optics. inspection analysis of devices and apparatus for diagnosis, correction and protection of vision organs.	5			5								
Topic 19. Commodity analysi of devices and means for th examination and diagnosis c the body.	3			3								
Topic 21. Goods that have the right to purchase and sell pharmacy establishments and their structural subdivisions.	2	2										
Topic 22. Containers for pharmaceutical application. Closures and modern package materials in pharmacy.	2	2										
Total under Module 2	48	7	6	20		15						
Final modular control	1			1								
Total Hours Module 1	75	11	10	33		21						

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
THEMATIC MODULE 3. GOODS THAT HAVE THE RIGHT TO PURCHASE AND SELL PHARMACY ESTABLISHMENTS AND THEIR STRUCTURAL SUBDIVISIONS. CONTAINERS FOR PHARMACEUTICAL APPLICATION.												
Topic 20. Inspection analysis of equipment for disinfection, pre-sterilization processing and sterilization.	4					4						
Topic 21. Goods that have the right to purchase and sell pharmacy establishments and their structural subdivisions.	3			3								
Topic 22. Containers for pharmaceutical application. Closures and modern package materials in pharmacy.	3			3								
Topic 23. Oxygen and nitrous oxide, which are used in medicine. Inspection analysis of Oxygen, respiratory and anesthetic apparatus**.**	4					4						
Topic 24. Packaging and Transport containers.	4					4						
Total under Module 3	18			6		12						
THEMATIC MODULE 4. PACKAGE, MARKING, TRANSPORTATION OF MEDICAL PRODUCTS. ORGANIZATION OF STORAGE OF MEDICAL PRODUCTS AND ITEMS OF MEDICAL PURPOSE. ACCEPTANCE OF GOODS IN PHARMACEUTICAL WAREHOUSE.												
Topic 25. Packing, labelling and transporting of drugs	6	1	2	3								
Topic 26. Acceptance of commodities in pharmacy warehouse	3			3								
Topic 27. Inspection analysis of laboratory and pharmacy glassware, equipment and facilities for small-scale mechanization.	4					4						
Topic 28. Small tools for laboratories and pharmacies.	4					4						
Topic 29. Organization of storage of medicines and medical devices	6	1	2	3								
Topic 30. Inspection analysis of equipment for laboratories and pharmacies.	3					3						
Final modular control	1			1								
Total under Module4	27	2	4	10		11						
Total Hours Module 2	45	2	4	16		23						
Total hours	120	13	14	49		44						

3. Lecture Topics

№	Topic	Hours	
		Full-time Program	External Program
1	Theoretical bases of commodity science. Normative documentation.	1	
2	Classification and Coding of goods.	1	
3	Commodity analysis goods of the pharmacy assortment	1	
4	Package, labelling of medical goods.	1	
5	Commodity analysis of rubbers goods and items of care of patients.	1	
6	Commodity analysis of suture materials and piercing surgical needles.	1	
7	Commodity analysis of instruments and devices for piercings, injections and transfusions.	1	
8	Containers for pharmaceutical application. Closures and modern package materials in pharmacy.	2	
9	Goods that have the right to purchase and sell pharmacy establishments and their structural subdivisions.	2	
10	Packing, labelling and transporting of drugs.	1	
11	Organization of storage of medicines and medical devices	1	
	Total Hours	**13**	

4. Seminar Class Topics

№	Topic	Hours	
		Full-time Program	External Program
1	Theoretical bases of commodity science. Normative documentation.	2	
2	Package, labelling of medical goods.	2	
3	Commodity analysis of rubbers goods and items of care of patients.	2	
4	Commodity analysis of instruments and devices for piercings, injections and transfusions.	2	
5	Commodity analysis of dressing materials and prepared dressing means.	2	
6	Packing, labelling and transporting of drugs.	2	
7	Organization of storage of medicines and medical devices	2	
	Total Hours	**14**	

5. Practical Classes Topics

№	Topic	Hours	
		Full-time Program	External Program
1	Theoretical bases of commodity science. Normative documentation.	3	
2	Classification and Coding of goods.	3	
3	Package, labelling of medical goods.	3	
4	Commodity analysis of goods of the pharmacy assortment.	3	
5	Commodity analysis of rubbers goods and items of care of patients	3	
6	Commodity analysis of suture materials and piercing surgical needles.	3	
7	Commodity analysis of instruments and devices for piercings, injections and transfusions.	3	
8	Commodity analysis of dressing materials and prepared dressing means.	3	
9	Commodity analysis of devices and means for the examination and diagnosis of the body.	3	
10	Ophthalmic optics. inspection analysis of devices and apparatus for diagnosis, correction and protection of vision organs.	5	

11	Goods that have the right to purchase and sell pharmacy establishments and their structural subdivisions.	3	
12	Containers for pharmaceutical application. Closures and modern package materials in pharmacy.	3	
13	Packing, labelling and transporting of drugs	3	
14	Acceptance of commodities in pharmacy warehouse	3	
15	Organization of storage of medicines and medical devices	3	
	Final modular control	2	
	Total Hours	**49**	

6. Laboratory Practical Topics

There is no working curriculum

№	Topic	Hours	
		Full-time Program	External Program
1			
2			
	Total Hours		

7. Individual Work

№	Topic	Hours	
		Full-time Program	External Program
1	Inspection analysis of medical equipment.	2	
2	Inspection analysis of technical means for traumatology	2	
3	Inspection analysis of tools for survey, endoscopy and introscopy	2	
4	Bases of materiology goods of the pharmacy assortment. Metallic materials, which are used in medicine and pharmacy. Inspection analysis of common surgery tools: cutting, clamping, probing and bougienage.	3	
5	Inspection analysis of equipment for stomatology.	3	
6	Inspection analysis of special tools: neuro-surgical, ophthalmologic and otorhinolaryngologic.	3	
7	Inspection analysis of special tools: urological, obstetric-gynecologic.	3	
8	Polymeric materials and plastics, which are used in pharmacy.	3	
9	Inspection analysis of equipment for disinfection, pre-sterilization processing and sterilization.	4	
10	Oxygen and nitrous oxide, which are used in medicine. Inspection analysis of Oxygen, respiratory and anesthetic apparatus**.**	4	
11	Packaging and Transport containers.	4	
12	Inspection analysis of laboratory and pharmacy glassware, equipment and facilities for small-scale mechanization.	4	
13	Small tools for laboratories and pharmacies.	4	
14	Inspection analysis of equipment for laboratories and pharmacies.	3	
	Total Hours	**44**	

8. Individual Tasks

There is no working curriculum

9. Scheme of accrual and distribution of points

Current control is carried out at each practical and seminar session in accordance with the specific goals of the topic and during the individual work of a teacher with a higher education student for those topics that the applicant of higher education studies independently and they do not belong to the structure of the class.

The maximum number of points awarded to higher education students when mastering the module is 100, including 60 for the current educational activity (for each content module 30 points), 40 points for the module control.

Module 1

Current testing and self-study										Final test	Sum
Submodule № 1				Submodule № 2							
T. 1-3	T. 4	T. 5-6	T. 7-8	T. 9-11	T.12-14	T.15-16	T.17	T.18	T.19		
7,5	7,5	7,5	7,5	5	5	5	5	5	5	40	100
30				30							

T1, T2 ... T9 – topics of submodules.

Module 2

Current testing and self-study					Final test	Test
Submodule № 3		Submodule № 4				
T.20-22	T.23-24	T. 25-27	T.28	T.29-30		
15	15	10	10	10	40	100
30		30				