

**I. HORBACHEVSKY TERNOPIL NATIONAL MEDICAL UNIVERSITY
OF THE MINISTRY OF HEALTH OF UKRAINE**

Curriculum

Specialty 226 «Pharmacy, industrial pharmacy»

1st year of study

List of Academic Subjects	Credits	Academic hours					I semester				II semester			
		Total	Lectures	Seminars	Practical classes	Students individual work				individual work				individual work
							lectures	seminars	practical classes		lectures	seminars	practical classes	
Foreign Language	3,0	90			50	40			20	18			30	22
Ukrainian Language for Professional Purposes	3,0	90			30	60							30	60
History of Ukraine and Ukrainian Culture	3,0	90	20	10		60	6	4		24	14	6		36
Latin Language	3,0	90			60	30			26	14			34	16
Philosophy	3,0	90	20	20		50	20	20		50				
Biology with Fundamentals of Genetics	4,0	120	20		50	50	20		50	50				
Biological Physics with Physical Methods of Analysis	4,5	135	20		60	55								
<i>Biological Physics</i>	3,0	90	14		40	36	2		4	16	12		36	20
<i>Physical Methods of Analysis</i>	1,5	45	6		20	19	2		4	9	4		16	10
Higher Mathematics and Statistics	3,5	105	20		50	35	20		50	35				
Human Anatomy and Physiology	5,0	150	32		68	50								
<i>Human Anatomy</i>	2,0	60	16		24	20	2		4	8	14		20	12
<i>Physiology</i>	3,0	90	16		44	30	2		4	14	14		40	16
Ethics and Deontology in Pharmacy	3,0	90	10	30		50					10	30		50
Introduction to Pharmacy	3,0	90	20	20	20	30	20	20	20	30				
General and Inorganic Chemistry	6,0	180	30		80	70	14		32	34	16		48	36
Life and Work Safety; Basics of Bioethics and Biosecurity	3,0	90	24		16	50					24		16	50
Elective courses:	13,0	390	40	80		270								
Physical Education		160		30		130		14		60		16		70
Total	60,0	1960,0	256,0	190,0	484,0	1030,0	108,0	58,0	214,0	362,0	108,0	52,0	270,0	398,0

2nd year of study

List of Academic Subjects	Credits	Academic hours					I semester				II semester			
		Total	Lectures	Seminars	Practical classes	Students individual work				individual work				individual work
							lectures	seminars	practical classes		lectures	seminars	practical classes	
Foreign Language for Professional Purposes	3,0	90			30	60			30	60				
Physical and Colloidal Chemistry	4,0	120	30		60	30	16		30	15	14		30	15
Information Technology in Pharmacy	5,0	150	10		60	80	10		60	80				
Pathological Physiology	5,0	150	20		60	70	10		30	30	10		30	40
Pharmaceutical Botany	5,0	150	14		70	66	8		34	36	6		36	30
Microbiology with Fundamentals of Immunology	5,0	150	20		66	64					20		66	64
Hygiene and Ecology in Pharmacy	3,0	90	10		30	50					10		30	50
Organic Chemistry	8,0	240	30		120	90	14		60	40	16		60	50
Analytical Chemistry	8,0	240	30		120	90	14		60	40	16		60	50
First Pre-Hospital Aid with Introductory Practical Training	3,0	90	10		40	40	10		20	30			20	10
Practical Training in Pharmaceutical Botany	3,0	90			30	60							30	60
Elective courses:	8,0	240	20		60	160								
Physical Education		160		30		130		30		130				
Total	60,0	1960,0	194,0	30,0	746,0	990,0	82,0	30,0	324,0	461,0	92,0	0,0	362,0	369,0

3rd year of study

List of Academic Subjects	Credits	Academic hours					I semester				II semester			
		Total	Lecures	Seminars	Practical classes	Students individual work				individual work				individual work
							lectures	seminars	practical classes		lectures	seminars	practical classes	
Technology of Drugs	6,0	180	20		90	70	10		40	35	10		50	35
Pharmaceutical Chemistry	6,0	180	20		90	70	10		40	35	10		50	35
Pharmacognosy	8,5	255	30		140	85	10		60	35	20		80	50
Biological Chemistry	6,0	180	40		60	80	40		60	80				
Computer Modelling in Pharmacy	3,0	90	4		36	50	4		36	50				
Pharmacology	8,5	255	30		140	85	10		60	30	20		80	55
Pharmaceutical Law and Legislation	3,0	90	20		30	40	20		30	40				
Emergency Medicine	3,0	90	10		20	60					10		20	60
Training of Reserve Officers in the Field of Healthcare, Specialty "Pharmacy"	3,0	90			50	40								
Elective Courses	12,0	360	30		90	240								
Unified State Qualification Exam Krok-1	1,0	30				30								30
Total	60,0	1800,0	174,0	0,0	746,0	850,0	104,0	0,0	326,0	305,0	70,0	0,0	280,0	265,0

4th year of study

List of Academic Subjects	Credits	Academic hours					I semester				II semester			
		Total	Lectures	Seminars	Practical classes	Students individual work	lectures	seminars	practical classes	individual work	lectures	seminars	practical classes	individual work
Pharmaceutical Chemistry	4,0	120	20		72	28	10		36	14	10		36	14
Clinical Pharmacy and Pharmaceutical Care	6,0	180	20		84	76					20		84	76
Technology of Drugs	6,0	180	20		84	76	10		42	38	10		42	38
Management and Marketing in Pharmacy	3,0	90	10		42	38					10		42	38
Organization and Economics of Pharmacy	6,0	180	30		90	60	16		30	20	14		60	40
Pharmacotherapy with Pharmacokinetics	3,0	90	10		30	50	10		30	50				
Toxicological and Forensic Chemistry	4,0	120	20		72	28	10		30	10	10		42	18
Pharmaceutical and Medical Commodity Science	4,0	120	20		30	70	20		30	70				
Medical Toxicology	3,0	90	10		30	50	10		30	50				
Pharmacoeconomics	3,0	90	6		24	60	6		24	60				
Occupational Safety in Pharmacy	3,0	90	10		30	50	10		30	50				
Practical Training in Pharmacognosy	3,0	90		30		60						30		60
Elective Courses	12,0	360	74		120	166								
Total	60,0	1800,0	250,0	30,0	708,0	812,0	102,0	0,0	282,0	362,0	74,0	30,0	306,0	284,0

Specialty 7.12020101 «Pharmacy »
5th year of study

List of Academic Subjects	Credits	Academic hours					I semester				II semester			
		Total	Lecures	Seminars	Practical classes	Students individual work	lectures	seminars	practical classes	individual work	lectures	seminars	practical classes	individual work
Biopharmacy	2,0	60	6		12	42	6		12	42				
Occupational Safety in Pharmacy	1,5	45	12		6	27	12		6	27				
Management and Marketing in Pharmacy	4,0	120	18		42	60	18		42	60				
Patenting	1,5	45	12		6	27	12		6	27				
Clinical Pharmacy	6,0	180	28		84	68	28		84	68				
Pharmaceutical Law	3,0	90	22		24	44	22		24	44				
Toxicological Chemistry	4,0	120	20		30	70	20		30	70				
Resource Studies of Medicinal Plants	3,0	90	10		30	50	10		30	50				
Standardization of Medicines	2,0	60	10		30	20	10		30	20				
Medical and Pharmaceutical Commodity Science	2,0	60	12		24	24	12		24	24				
Cosmetic Products Technology	3,0	90	26		30	34					26		30	34
Good Pharmacy Practices	3,0	90	26		30	34					26		30	34
Specialization	6,0	180	20		90	70					20		90	70
Practical Training in Clinical Pharmacy / <i>Coursepaper</i>	2,0	60		24		36						24		36
Practical Training in Pharmaceutical Chemistry	4,5	135		54		81						54		81
Practical Training in Organization and Economics of Pharmacy / <i>Coursepaper</i>	4,5	135		54		81						54		81
Practical Training in Management and Marketing in Pharmacy / <i>Coursepaper</i>	3,0	90		36		54						36		54
Practical Training in the Field of Specialization	1,0	30		12		18						12		18
Attestation	4,0	120				120								120
Total	60,0	1800	222	180	438	960	150	0	288	432	72	180	150	528