MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

CURRICULUM

(Enrolment 2017)

APPROVED
by Rector of Igor Sikorsky Kyiv Polytechnic Institute

_____ Michael Zgurovsky

_____ 2017

Level Bachelor
Speciality 101 Ecology
Specialization Environmental Safety
Graduation Department Ecology and Plant Polymers Technology

Form of study full-time (full-time, part-time)
Faculty (Institute) Chemical Engineering
Qualification Bachelor Degree in Ecology
Study duration 3 years 10 months
Base level full secondary education

I. Schedule of educational process

YEAR	1 Sep	2	3	4	5 Oct	6	7	8	9	10 Nov	11	12	13	14	15 Dec	16	17	18	19 Jan	20	21	22	23	24 Jan	25	26	27	28 Mar	29	30	31	32 Apr	33	34	35	36 May	37	38	39	40 Jun	41	42	43	44 Jul	45	46	47	48	49 Aug	50	51	52
I																			E	E	H	H																		E	E	H	H	H	H	H	H	H	H	H	H
II																			E	E	H	H																		E	E	H	H	H	H	H	H	H	H	H	H
III																			E	E	H	H																		E	E	H	H	H	H	H	H	H	H	H	H
IV																			E	E	H	H										E	P	P	P	P	P	R	R	R	R	A	A									

Symbols: Learning period; E Examination; P Practice; R Research; A Assessment; H Holiday

II. Summary table of time budget (Weeks)

YEAR	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4					52
II	36	4					52
III	36	5					52
IV	27	3	5	2	4	2	43

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma	2021	5

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Diploma Project	Bachelor Thesis Defence	2021

V. Plan of Educational process

Code	Subjects	Distribution for terms (semesters)				ECTS Credits	Number of hours				
								Lectures/practical lessons			
		Exams	Final tests	Course projects	Coursework		Total	Lectures	Practical	Laboratory	Self-study
1	2	3	4	5	6	7	8	9	10	11	12
	I. GENERAL TRAINING										
	I.1. Natural-scientific training										
1	Higher Mathematics	1, 2				13	390	90	126		174
2	Physics		2,3			7,5	225	54	36	36	99
3	Informatics and Systematology		2g,3g			6	180	36	72		72
4	Geology and Fundamentals of Morphology		2g,3g			3	90	36	18		36
5	Hydrology	4			4	5	150	36	9	9	96
6	Meteorology and Climatology		3g			3	90	36	18		36
7	Soil Science	2				3	90	27		18	45
8	Chemistry and Fundamentals of Biogeochemistry		1g			4,5	135	54		27	54
9	Biology	1				7	210	54	18	36	102
	total number of part I.1	5	5g+2		1	52	1560	423	297	126	714
	I.2. Basic training (major courses)										
10	Economics and Production Engineering		7			4	120	36	36		48
11	Labor Safety and Civil Defence		7			4	120	36	28	8	48
12	Introduction to Profession		1g			3	90	36	9		45
13	Landscape Ecology		4			3	90	36	18		36
14	Human Ecology		6g			3	90	18	18	18	36
15	Environmental Monitoring	5,6				6	180	45	9	27	99
16	Environmental Modelling and Forecasting	8				4,5	135	18		45	72
17	Urban Ecology	4				4,5	135	36	27		72
18	Technology	8	7g			8,5	255	63		72	120
19	Environmental Legislation and Environmental Law	3				3,5	105	36	9		60
20	Normalization of Anthropogenic Load on Environment	5			5	4,5	135	36	18		81
21	Environmental Safety	7				4,5	135	45	18		72
22	Ecological Expertise		6			3	90	27	18		45
23	Environmental Protection Organisation and Management		5g			3	90	36	18		36
24	Environmental Economics		5g			3	90	18	36		36
	total number of part I.2	8	5g+4		1	62	1860	522	262	170	906
	I.3. Basic training (optional courses)										
25	General Ecology Subject	1				6	180	54	36		90
	total number of part I.3	1				6	180	54	36	0	90
	I.4. Humanities training (optional courses)										
26	History Subjects (block 1)		1			2	60	18	18		24
27	Ukrainian Language Subjects (block 2)		2			2	60	18	18		24
28	Philosophy Subjects (block 3)		3			2	60	18	18		24
29	Psychology Subjects (block 4)		3			2	60	18	18		24
30	Subjects on Law (block 5)		6			2	60	18	18		24
31	Subjects on Humanities and Social Sciences #1 (block 6)		6			2	60	18	18		24
32	Subjects on Humanities and Social Sciences #2 (block 6)		7			2	60	18	18		24
33	Foreign Language		2, 4g			6	180		144		36
34	Foreign Language for Professional Purposes		6,7g			4	120		90		30
	total number of part I.4		2g+9			24	720	126	360	0	234
	TOTAL IN GENERAL TRAINING	14	12g+15		2	144	4320	1125	955	296	1944
	II. VOCATIONAL TRAINING										
	II.1. Vocational and practical training (major courses)										
35	Specific Topics of Biogeochemistry	2				6	180	54		36	90
36	Radioecology		4			2,5	75	18		18	39
37	Fundamentals of Design and Construction	6		6		4	120	18	9		93
38	Processes, Apparatus and Equipment for Environment Protection		5			3	90	36		18	36
39	Waste Utilization and Recuperation		6			2,5	75	36			39
40	Organic Chemistry		4			4	120	36	9	27	48
41	Physical Chemistry		5			3	90	27		27	36
42	Surface Phenomena and Disperse Systems		8			2	60	18		18	24
43	Analytical Chemistry	3,4				10	300	54		90	156
44	Water Use Systems Engineering		8g		8	4,5	135	27	18		90
	total numberof part II.1	4	1g+6	1	1	41,5	1245	324	36	234	651
	II.2. Vocational and practical training (optional courses)										
45	Subjects on Atmosphere Protection	3		3		7	210	27	27	36	120
46	Subjects on Hydrosphere Protection	7	6g	7		7,5	225	54	45		126
47	Subjects on Environmental Chemistry		4g			4,5	135	36	9	36	54
48	removal	5,6				18	540	72	36	198	234
49	Subjects on Environmental Control	7				4	120	27		36	57
50	Pre-diploma Practice		8g			7,5	225				225
51	Diploma Project					6	180				180
	total number of part II.2	5	3g	2		54,5	1635	216	117	306	996
	TOTAL IN VOCATIONAL TRAINING	9	4g+6	3	1	96	2880	540	153	540	1647
	TOTAL	23	16g+21	3	3	240	7200	1665	1108	836	3591

Approved by Faculty Academic Council, Meeting protocol № ____ from April 25, 2017

Head of the Department _____/_____Gomelya M.D. /
Dean of the Faculty _____/_____ Panov E.M. /