



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY "KHARKIV POLYTECHNIC INSTITUTE"

CURRICULUM

educational and professional program

Engineering ecology

in the field of

knowledge

10 Natural Sciences

(Knowledge field code and title)

APPROVED BY

Rector of NTU "Kharkiv Polytechnic Institute"

for the training

second (master's) level

(higher education level)



by specialty

- 101 Ecology

Qualification Master of Ecology

Period of study 1 year 4 months

on the basis of bachelor's degree

Form of study full-time

I. Schedule of Education Process

Course	September				October				November				December				January				February				March				April				May				June				July				August							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
1																	T	V	E	E	E	V																			T	E	E	E	V	V	V	V	V	V	V	V
2	P	P	P	P	P	P	P	P	Q	Q	Q	Q	Q	Q	D	D																																				

Legend: Theoretical study E Exam Session P Practice Q Preparation of qualification work T Test week V Vacation D Defending of qualification work

II. Consolidated budget time (in weeks)

Course	Theoretical study	Exam Session	Practice	Attestation	Preparation of qualification project (work)	Vacation	Total
1	32	8				12	52
2			8	2	6		16
total	32	8	8	2	6	12	68

III. Practice

Type of practice	Duration (in weeks)	Semester
Prediploma	8	3

IV. Attestation

Measures	Number of ECTS credits	Semester
Preparation of qualification work	11,0	3
Defending of qualification work	4,0	3
Proficiency examination		

НАВЧАЛЬНИЙ ПЛАН №	MIT-M123i.e
Форма навчання	i.e
Шифр інституту (факультету)	140
Скорочена назва інституту (факультету)	MIT
Номер освітньої програми	1
Назва освітньої програми	Engineering ecology
Шифр галузі знань	10
Назва галузі	Natural Sciences
Шифр спеціальності	101
Назва спеціальності	Ecology
Рівень вищої освіти:	second (master's) level
Кваліфікація:	Master of Ecology
Рік (останні 2 цифри)	23
Відповідальний за інформацію, телефон	T. Novozhylova

Форма : плани МАГІСТР освітньо-професійний


Форма Моп1-21 1,4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	29	
PP 1.	Pre-graduation practice		3		15,0	450,0					450,0						15,0	154	
3	Attestation				15,0	450,0					450,0						15,0	154,0	
4	Optional educational component				24,0	720,0	304,0	160,0	48,0	96,0	416,0	9,0	11,0	10,0	13,0				
4.1	Profile training				16,0	480,0	208,0	112,0	48,0	48,0	272,0	5,0	6,0	8,0	10,0				
4.1.1	Profiled discipline package 01 "Environmental engineering" / "Екологічна інженерія"				16,0	480,0	208,0	112,0	48,0	48,0	272,0	5,0	6,0	8,0	10,0				
OP 1.1	Biosphere Protection Equipment / Обладнання захисту біосфери	2		CP	6,0	180,0	80,0	48,0		32,0	100,0			5,0	6,0			154	
OP 1.2	Equipment and Basics of Designing Environmentally Safe Technologies Using CAD / Устаткування та основи проектування екологічно безпечних технологій з використанням САПР	1		CW	6,0	180,0	80,0	32,0	32,0	16,0	100,0	5,0	6,0					154	
OP 1.3	Production Automation and Instruments of Environmental Control and Monitoring / Автоматизація виробництв та прилади екологічного контролю та моніторингу		2	C	4,0	120,0	48,0	32,0	16,0		72,0			3,0	4,0			174	
4.1.2	Profiled discipline package 02 "Environmental Safety" / "Екологічна безпека"				16,0	480,0	208,0	128,0		80,0	272,0	5,0	6,0	8,0	10,0				
OP 2.1	Technologies for Ensuring Ecological Safety / Технології забезпечення екологічної безпеки	2		CP	6,0	180,0	80,0	48,0		32,0	100,0			5,0	6,0			154	
OP 2.2	Biosecurity and State Bio-protection / Біобезпека та біозахист держави	1		CW	6,0	180,0	80,0	48,0		32,0	100,0	5,0	6,0					154	
OP 2.3	Transboundary Ecological Safety / Транскордонна екологічна безпека		2	C	4,0	120,0	48,0	32,0		16,0	72,0			3,0	4,0			154	
4.2	Optional student disciplines of the profile preparation according to the list (the list is attached)				8,0	240,0	96,0	48,0		48,0	144,0	4,0	5,0	2,0	3,0				
Total for education period					90,0	2700,0	720,0	416,0	64,0	240,0	1980,0	23,0	30,0	22,0	30,0			30,0	
Hours per week											23,0	22,0							
Number of exams											4	4							
Number of tests											3	4		1					
Number of course projects (works)											1	1							
Numbers of disciplines per semester											7,0	8,0							

Individual tasks	
C	Calculated task
CG	Calculated and graphic task
R	Report
CP	Course project
CW	Course work

Approved by the Academic Council of NTU "KhPI"
Protocol № 5 from 02.06.2023


Vice-rector of Scientific-and-Pedagogical Work


G. Khrypunov
signature full name

Head of the educational program Engineering Ecology


M. Tseitlin
signature full name

Director of Education and Science Institute of Mechanical Engineering and Transport


V. Iepifanov
signature full name

Head of the Department Chemical Engineering and Industrial Ecology


O. Shestopalov
signature full name

List of optional student disciplines of the profile training

Code in accordance with the EPP	Name of academic discipline	Semester distribution			Number of ECTS credits	Number of hours						Distribution of classroom hours per a week and ECTS credits per a semester						Department			
		Exams	Tests	Individual tasks		Total amount	Classroom			Independent work	1 course		2 course		Classroom hours	ECTS credits	Classroom hours		ECTS credits	Classroom hours	ECTS credits
							Total	including			Semesters		Semester								
								Lectures	Laboratory works		Practical studies	1	2	3							
		Number of weeks in the semester						20		20		16									
															20	20	16				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
4.2	Optional student disciplines of the profile training																				
OPT 1	Strategic Environmental Assessment / Стратегічна екологічна оцінка		1	C	5,0	150,0	64,0	32,0		32,0	86,0	4,0	5,0					154			
OPT 2	Information Technology Applications for Environmental Monitoring / Інформаційні технології в галузі охорони навколишнього середовища		1	C	5,0	150,0	64,0	32,0	16,0	16,0	86,0	4,0	5,0					154			
OPT 3	Environment Biotechnological Protection / Біотехнологічний захист навколишнього середовища		1	C	5,0	150,0	64,0	32,0		32,0	86,0	4,0	5,0					154			
OPT 4	Regional Ecology and Nature Management / Регіональна екологія та природокористування		2	R	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0			154			
OPT 5	Theory of Systems in Ecology / Теорія систем в екології		2	C	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0			154			
OPT 6	Ecological Labeling / Екологічне маркування		2	R	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0			154			