

CURRICULUM

educational and professional program

Engineering ecology

Natural Sciences, Mathematics and Statistics

for the
training

second (master's) level

(level of higher education)

(code and name of the field of knowledge)

- E2 Ecology

Qualification	Master of Ecology
----------------------	--------------------------

Period of study	1 year 4 months
-----------------	-----------------

on the basis of bachelor's degree

by specialty

Form of study	full-time
----------------------	------------------

Yevgen SOKOL

~~2025 y.~~

"27" MAY

I. Schedule of the educational process

Notation:

	Theoretical training
S	Score week
E	Examination session

P Practice

C Attestation

V Vacations

II. Consolidated budget time (in weeks)

III. Practice

IV. Attestation

Certification form	Semester
Defense of qualification thesis	3

CURRICULUM №	MIT-M125i.e
Form of study and more	i.e
Institute code	140
Short name of the institute	MIT
Number of the educational program	1
Name of the educational program	Engineering ecology
Code of the field of knowledge	E
Industry name	Natural Sciences, Mathematics and Statistics
Specialty code	E2
Name of the specialty	Ecology
Level of higher education:	second (master's) level
Qualifications:	Master of Ecology
Year (last 2 digits)	25
Responsible for information, phone number	Novozhylova T.B. 0675800860

CURRICULUM CONTENT

Master's degree program:

by specialty

E2

Ecology

Code according to EPP	Name of the educational component	Total number				Department code
		ECTS credits	Hours	Semesters		
				exam.	offset	
1	2	3	4	5	6	7
1	Mandatory educational components	58,0	1080,0			64%
1.1	General training	12,0	360,0			10%
GT 1	Fundamentals of Scientific Researches/Основи наукових досліджень	3,0	90,0		1	154
GT 2	Innovative Entrepreneurship and Startup Project Management / Інноваційне підприємництво та управління стартап проектами	3,0	90,0		1	202
GT 3	Intellectual Property / Інтелектуальна власність	3,0	90,0		2	202
GT 4	Екологічна освіта /Environmental Education	3,0	90,0		1	154
1.2	Special (professional) training	24,0	720,0			27%
PT 1	Technogenic and Ecological Safety Management / Управління техногенною та екологічною безпекою	5,0	150,0	1		154
PT 2	Base sustainable development / Екологічні засади сталого розвитку країни	4,0	120,0		1	154
PT 3	Environmental Management / Екологічний менеджмент	4,0	120,0		1	154
PT 4	Eco-innovation in Creating New Technologies / Екоінновації в створенні нових технологій	4,0	120,0	1		154
PT 5	Scientific Research and Modelling in Ecology / Наукові дослідження та моделювання в екології	4,0	120,0	1		191
PT 6	International cooperation and grant writing in environmental protection / Міжнародна співпраця та грантрайтинг в екології	3,0	90,0	2		154
1.3	Practical training	11,0	330,0			12%
PT 1	Prediploma practice	11,0	330,0		3	154
1.4	Certification	11,0	330,0	3		12%
2	Elective educational components	32,0	960,0			36%
2.1	Educational components of free choice of professional training of the general Institutional catalog	24,0	720,0			27%
ECPT 1	EC FC PT 1	4,0	120,0		2	777
ECPT 2	EC FC PT 2	4,0	120,0		2	777
ECPT 3	EC FC PT 3	4,0	120,0		2	777
ECPT 4	EC FC PT 4	4,0	120,0		2	777
ECPT 5	EC FC PT 5	4,0	120,0		2	777
ECPT 6	EC FC PT 6	4,0	120,0		2	777
2.2	Educational components of free choice of general training	8,0	240,0			9%
ECGT 1	EC FC GT 1	4,0	120,0		3	777
ECGT 2	EC FC GT 2	4,0	120,0		3	777
	Total number for the training period	90,0	2700,0			

V. EDUCATION PROCESS PLAN

MIT-M125i.e

Code according to EPP	Name of 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									
							Total	including				Semesters				2 course					
								Lectures	Laboratory works	Practical studies		1		2		3		4			
												Number of weeks in the semester									
												20		20		20		20			
												Classroom hours	ECTS credits	Classroom hours	ECTS credits	Classroom hours	ECTS credits	Classroom hours	ECTS credits		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	29	
1	Mandatory educational components				58,0	1740,0	416,0	256,0	16,0	144,0	1324,0	22,0	30,0	4,0	6,0						
1.1	General training				12,0	360,0	128,0	64,0		64,0	232,0	6,0	9,0	2,0	3,0						
GT 1	Fundamentals of Scientific Researches/Основи наукових досліджень		1	PE	3,0	90,0	32,0	16,0		16,0	58,0	2,0	3,0								
GT 2	Innovative Entrepreneurship and Startup Project Management / Інноваційне підприємництво та управління стартап проектами		1	PE	3,0	90,0	32,0	16,0		16,0	58,0	2,0	3,0								154
GT 3	Intellectual Property / Інтелектуальна власність		2	PE	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0						202
GT 4	Екологічна освіта /Environmental Education		1	PE	3,0	90,0	32,0	16,0		16,0	58,0	2,0	3,0								202
1.2	Special (professional) training				24,0	720,0	288,0	192,0	16,0	80,0	432,0	16,0	21,0	2,0	3,0						154
PT 1	Technogenic and Ecological Safety Management / Управління техногенною та екологічною безпекою	1		C	5,0	150,0	64,0	48,0		16,0	86,0	4,0	5,0								154
PT 2	Base sustainable development / Екологічні засади сталого розвитку країни		1	PE	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0								154
PT 3	Environmental Management / Екологічний менеджмент		1	PE	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0								154
PT 4	Eco-innovation in Creating New Technologies / Екоінновації в створенні нових технологій	1		C	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0								154
PT 5	Scientific Research and Modelling in Ecology / Наукові дослідження та моделювання в екології	1		C	4,0	120,0	48,0	32,0	16,0		72,0	3,0	4,0								191
PT 6	International cooperation and grant writing in environmental protection / Міжнародна співпраця та грантрайтинг в екології	2		C	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0						154
1.3	Practical training				11,0	330,0					330,0										
PT 1	Prediploma practice		3		11,0	330,0					330,0						11,0				
1.4	Certification	3			11,0	330,0					330,0						11,0				154
2	Elective educational components				32,0	960,0	384,0	224,0		160,0	576,0			18,0	24,0	24,0	8,0				154,0
2.1	Educational components of free choice of professional training of the general institutional catalog				24,0	720,0	288,0	192,0		96,0	432,0			18,0	24,0						


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	29
ECPT 1	EC FC PT 1		2		4,0	120,0	48,0				72,0			3,0	4,0					777
ECPT 2	EC FC PT 2		2		4,0	120,0	48,0				72,0			3,0	4,0					777
ECPT 3	EC FC PT 3		2		4,0	120,0	48,0				72,0			3,0	4,0					777
ECPT 4	EC FC PT 4		2		4,0	120,0	48,0				72,0			3,0	4,0					777
ECPT 5	EC FC PT 5		2		4,0	120,0	48,0				72,0			3,0	4,0					777
ECPT 6	EC FC PT 6		2		4,0	120,0	48,0				72,0			3,0	4,0					777
2.2	Educational components of free choice of general training				8,0	240,0	96,0	32,0		64,0	144,0					24,0	8,0			
ECGT 1	EC FC GT 1		3		4,0	120,0	48,0				72,0					12,0	4,0			777
ECGT 2	EC FC GT 2		3		4,0	120,0	48,0				72,0					12,0	4,0			777
Total number for the training period					90,0	2700,0	800,0				1900,0	22,0	30,0	22,0	30,0	24,0	30,0			
Hours per week												22,0		22,0		24,0				
Number of exams												3		1		1				
Number of tests												5		7		3				
Number of course projects (works)																				
Numbers of disciplines per semester												8,0		8,0		4,0				

Individual tasks	
C	Calculated task
CG	Calculated and graphic task
PE	Report
CP	Course project
CW	Course work
SRW	Scientific research work

Approved by the Academic Council of NTU "KhPI"

PROTOCOL №5 from 18.04.2025

Vice-rector of Scientific-and-Pedagogical Work


 G. Khrypunov
 signature


 V. Iepifanov
 signature

Director of Education and Science Institute of Mechanical Engineering and Transport

name of the institute

Head of the educational program Engineering Ecology


 E. Manoilo
 signature

Head of the Department of Chemical Engineering and Environment Protection

institute's department name


 O. Shestopalov
 signature