



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

CURRICULUM

(Enrolment 2020)

APPROVED

Igor Sikorsky Kyiv Polytechnic Institute

Academic Council

" " 2020

Meeting protocol № _

Head of Academic Council

Mikhail Ilchenko

Level Master

Speciality 132 Materials Science

Specialization Nanotechnologies and Computer-aided Materials Design

Profile program Master degree

Graduation Department High Temperature Materials and Powder Metallurgy

Form of study full-time

Faculty (Institute) IMZ

Qualification Master of Materials Science

Study duration 1 year 4 months

Base level Bachelor degree

I. Schedule of educational process

YEAR	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				
I	P	P	P	P	P	P	P	P	R	R	R	R	R	R	R	R	A	A	A	A	E	E	H	H																					E	E	H	H	H	H	H	H	H	H	H	H

Symbols: Learning period Examination Practice Research Assessment Holiday

II. Summary table of time budget (Weeks)

YEAR	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4				12	52
II			8		10		18

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma practice	3	8

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Work on a Master's Thesis	Master's Thesis Implementation	3

V. Plan of Educational process

Code	Subjects	Distribution by terms (semesters)				ECTS Credits	Number of hours					
		Exams	Final tests	Course projects	Coursework		Total	Lectures/practical lessons			Self-study	
								Lectures	Practical	Laboratory		
1	2	3	4	5	6	7	8	9	10	11	12	
I. GENERAL TRAINING												
I.1. Basic training (major courses)												
GO I	Intellectual Property and Patenting		1			3	90	36	18		36	
GO II	Academic discipline on the problems of sustainable development		1			2	60	18	18		24	
GO III	Foreign Language Professional Communication Practicum		2			3	90		72		18	
GO IV	Curricula of Management		2			3	90	18	36		36	
total number of part I.1		0	4	0	0	11	330	72	144	0	114	
I.2. Professional training												
PO I	Engineering Materials Science	1				4,5	135	36	18		81	
PO II	Physics of Strength and Destruction		1			2	60	18		9	33	
PO III	Вибір and Computer Design of Materials	1				4	120	27		27	66	
PO IV	Phase equilibria and phase transformations	1				4	120	36	18		66	
PO V	Practice of Scientific Research		1,2			7	210			135	75	
PO VI	Coursework of Practice of Scientific Research				2	1	30				30	
Research (scientific) component												
PO VII	Scientific work on the topic of master's dissertation 1. Fundamentals of Scientific Research 2. Scientific Research		1,2			4	120	9	36		75	
PO VIII	Practice		3			14	420				420	
PO IX	Preparation and Defence of Master's Thesis					16	480				480	
total number of professional training		3	6	0	1	56,5	1695	126	72	171	1326	
TOTAL IN GENERAL TRAINING		3	10	0	1	67,5	2025	198	216	171	1440	
II. VOCATIONAL TRAINING												
II.1. Vocational and practical training												
PV I	Educational Component of 1 F - Catalog	2				5	150	36		18	96	
PV II	Educational Component of 2 F - Catalog	2				5	150	36		18	96	
PV III	Educational Component of 3 F - Catalog		2			4	120	36	18		66	
PV IV	Educational Component of 4 F - Catalog	2				5	150	36		18	96	
PV V	Educational Component of 5 F - Catalog		2			3,5	105	18		18	69	
total number of part II.1		3	2	0	0	22,5	675	162	18	72	423	
TOTAL IN VOCATIONAL TRAINING		3	2	0	0	22,5	675	162	18	72	423	
TOTAL		6	12	0	1	90	2700	360	234	243	1863	

Approved by Institute Academic Council, Meeting protocol № 3/20 from April 13, 2020

Head of the Department _____ / Yuriy BOGOMOL /

Director of the Institute _____ / Petro LOBODA /