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	**Master**	**Form of study**	**full-time** (full-time, part-time)
Speciality	**161 Chemical Technology and Engineering**	**Faculty (Institute)**	**Chemical Technology**
Specialization	**Chemical Technologies of Inorganic Ceramic Materials**	**Qualification**	**2146.2 - Industrial Engineer (Chemical Technologies)** **2149.2 - Research Engineer**
Profile program	**Chemical Technologies of Inorganic Ceramic Materials**	**Study duration**	**1 year 9 month**
Graduation Department	**Department of Chemical Technology of Ceramic and Glass**	**Base level**	**Bachelor Degree**

I. Schedule of educational process

YEAR	September				October					November					December				January					January				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																			E	E	H	H																			E	E	H	H	H	H	H	H	H	H	H	H
II																			E	E	H	H	P	P	P	P	P	R	R	R	R	R	R	R	R	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				12	52
II	18	2	5		12	2	39

III. Practice

Type of practice	YEAR	Weeks
Research Practice	2	5

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Scientific Research on the Thesis Topic	Defence of Master's Thesis	2

V. Plan of Educational process

Code	Subjects	Distribution for terms (semesters)				ECTS Credits	Number of hours					Individual work	Distribution of classroom hours per week and semester courses			
		Exams	Final tests	Course projects	Coursework		Total	Lectures/practical lessons			Self-study		1		2	
													Semesters			
													1	2	3	4
													Number of weeks per semester			
													18	18	18	17
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
I. GENERAL TRAINING																
I.1. Basic training (major courses)																
1/ I	**Patenting and Copyright Law**		1			3	90	54	36	18		36	3			
2/ I	**Mathematical Optimization Methods**	3				4	120	54	36	18		66			3	
3/ I	**Process Control in Chemical Engineering**	3				4	120	54	36	18		66			3	
	total number of part I.1	2	1			11	330	162	108	54		168	3		6	
I.2. Basic training (optional courses)																
1/ II	**Subject on Fundamentals of Sustainable Development of Society**		2			2	60	36	18	18		24		2		

2/ II	Subject on Pedagogical Skills		3			2	60	36	30	6		24			2	
3/ II	Subject on Innovation Management		2д			3	90	54	18	36		36		3		
4/ II	Subject on Advanced Foreign Language for Professional and Scientific Communication		2, 3			4,5	135	108		108		27	2	2	2	
	total number of part I.2		5			12	345	234	66	168		111	2	7	4	
	I.3. Basic training (optional courses)															
1/ III	Scientific Workon the Topic of Master's Thesis		1д, 3			7,5	225	45	9	36		180	1,5	1		
2/ III	Pre-diploma Practice		4д			9	270					270				X
3/ III	Master's Thesis Implementation					21	630					630				X
	total number of part I.3		3			38	1125	45	9	36		1080	1,5	1		
	TOTAL IN GENERAL TRAINING	2	9			60	1800	441	183	258		1359	6,5	8	10	
	II. VOCATIONAL TRAINING															
	II.1. Vocational and practical training (major courses)															
1/c	Computer technologies in manufacturing processes of inorganic ceramic materials		1д			4	120	72	18	18	36	48	4			
2/c	Innovative technologies in the production of ceramic materials	1			1	7,5	225	90	36		54	135	5			
3/c	Innovative technologies in the production of special and household glass	1				7	210	90	36		54	120	5			
4/c	Technological design of ceramics and glass manufacturing		2д	2		4,5	135	54	18		36	81		3		
5/c	New ceramic materials and methods of their synthesis	2				6	180	81	36		45	99		4,5		
6/c	New glass-like materials and methods of their synthesis	2				6	180	81	36		45	99		4,5		
7/c	Instrumental methods of research in ceramics and glass technology	2				5	150	72	36	18	18	78		4		
	total number of part II.1	5	2	1	1	40	1200	540	216	36	288	660	14	16		
	II.2. Vocational and practical training (optional courses)															
1/св	Educational discipline of modern physical chemistry of inorganic materials	1				5	150	63	18		45	87	3,5			
2/св	Educational discipline on modern problems of silicate materials science	3			3	10	300	108	36	18	54	192			6	
3/св	Educational discipline of information support of scientific research		3д			5	150	72	36		36	78			4	
	total number of part II.2	2	1		1	20	600	243	90	18	135	357	3,5		10	
	TOTAL IN VOCATIONAL TRAINING	7	3	1	2	60	1800	783	306	54	423	1017	17,5	16	10	
	TOTAL	9	12	1	2	120	3600	1224	489	312	423	2376	24	24	20	

Approved by Faculty Academic Council, Meeting protocol № _4_ from April 24, 2017

Head of the Department _____/ Kornilovych B.Yu. /

Dean of the Faculty _____/ Astrelin I.M. /