



# CURRICULUM

(Enrolment 2017)

APPROVED

by Rector of Igor Sikorsky Kyiv Polytechnic Institute

Level Master

Form of study full-time  
(full-time, part-time)

Mykhailo Zgurovsky

Speciality 141 Electricity, electrical engineering and electromechanics

Faculty (Institute) FEA

2017

Specialization Electric machines and apparatus

Qualification research engineer

For the educational and scientific program of master's training Electric machines and apparatus

Study duration 1 year 9 months

Graduation Department \_\_\_\_\_

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																																		
II																			E	E	H	H	P	P	P	P	P	R	R	R	R	R	R	R	R	R	R	R	R	R	A															

Symbols: Learning period (yellow), 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			2	39

## III. Practice

Type of practice	YEAR	Weeks
Scientific and Research Practice	2	5

## IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Implementation of the master's thesis	Defense of the master's thesis	2

## V. Plan of Educational process

Code	Subjects	Distribution for 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
<b>I. GENERAL TRAINING</b>											
<b>I.1. Basic training (major courses)</b>											
1/I	Patenting and Copyright Law		2			3	90	36	18		36
2/I	Fundamentals of Electromechanotronics	3				4	120	36		18	66
3/I	Mathematical Optimization Methods		3Д			4	120	36		18	66
<b>total number of part I.1</b>		1	2			11	330	108	18	36	168
<b>I.2. Basic training (optional courses)</b>											
1/II	Fundamentals of Sustainable Development of Society		2			2	60	18	18		24
2/II	Higher School Pedagogy		3			2	60	30	6		24
3/II	Innovation Management		1			3	90	18	36		36
4/II	Workshop on foreign language professional communication: English for Scientists - I, II, III		2,3			4,5	135		108		27
<b>total number of part I.2</b>			5			11,5	345	66	168		111
<b>I.3. Science Research (optional courses)</b>											
<b>Scientific researches at the masters thesis aim</b>											
1/III	1.Fundamentals of Scientific Research		1Д			2	60	9	18		33
2/III	2.Scientific Research		2Д,3Д			5,5	165		18		147
3/III	Scientific and Research Practice		4Д			9	270				270
4/III	Master Thesis					21	630				630
<b>total number of part I.3</b>			4			37,5	1125	9	36		1080
<b>TOTAL IN GENERAL TRAINING</b>		1	11			60	1800	183	222	36	1359

II. VOCATIONAL TRAINING										
II.1. Vocational and practical training (major courses)										
1/c	Technical Electrodynamics	3				6	180	36	36	108
2/c	Fundamentals of Electromechanical Structures Theory	3				6	180	36	36	108
3/c	Electrical Machines Reliability	1				7	210	63		111
4/c	Powerful electromechanical complexes and energy saving during their operation : 1 Traction Electrical Machines, 2	1,2				11,5	345	144	36	165
5/c	Electrical Machinery of Automation Systems	2			2	6,5	195	54		105
6/c	Special Electrical Machines	1			1	4	120	36	18	66
7/c	Tests, Defect Diagnosis and Service Maintenance of Electrical Machines		1			3,5	105	45		51
8/c	Fundamentals of Electrical Machines Automated Design		1			2,5	75	27		39
9/c	Fundamentals of Electromechanotronics	2				4	120	36		66
10/c	Electric Drive Control Systems		1			3	90	27		45
11/c	Low-Voltage Electrical Switching Devices		2			3	90	18		54
12/c	Fundamentals of Innovation Synthesis of Electromechanical Systems		3			3	90	18	18	54
<b>total number of part II.1</b>		<b>8</b>	<b>5</b>		<b>2</b>	<b>60,0</b>	<b>1800</b>	<b>540</b>	<b>144</b>	<b>972</b>
II.2. Vocational and practical training (optional courses)										
<b>total number of part II.2</b>		<b>8</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>60</b>	<b>1800</b>	<b>450</b>	<b>54</b>	<b>702</b>
<b>TOTAL IN VOCATIONAL TRAINING</b>		<b>11</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>66</b>	<b>1980</b>	<b>531</b>	<b>234</b>	<b>1791</b>
<b>TOTAL</b>		<b>12</b>	<b>16</b>		<b>2</b>	<b>126</b>	<b>3780</b>	<b>723</b>	<b>366</b>	<b>2331</b>

Approved by Faculty Academic Council, Meeting protocol № 8 from Marth 27, 2017

Head of the Department \_\_\_\_\_ / Shynkarenko V.F. /

Dean of the Faculty (Director of the Institute) \_\_\_\_\_ / Yandulsky O.S. /