

**APPROVED**

by Academic Council

Igor Sikorsky Kyiv Polytechnic Institute  
(meeting protocol № \_\_ from \_\_\_\_\_ 2020)

Head of Academic Council

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

(Enrolment 2020)

**Level** Bachelor**Specialty** 141 - Electric power engineering, electrical engineering and electromechanics**Educational and Professional program** \_\_\_\_\_Electrotechnical devices and electrotechnological complexes**Graduation Department** Department of Theoretical Electrical Engineering**Form of study** full-time

(full-time, part-time)

**Faculty (Institute)** Faculty of electric power engineering and automatics**Qualification** Bachelor in electric power engineering, electrical engineering and electromechanics**Study duration** 3 years 10 months**Base level** Full Secondary Education**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																			E	E	H	H																																
II																			E	E	H	H																																
III																			E	E	H	H																																
IV																			E	E	H	H																																
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	36	4				12	52
III	36	4				12	52
IV	27	3	5	4	2	2	43

**III. Practice**

Type of practice	YEAR	Weeks
Pre-diploma Practice	IV	5

**IV. Graduates assessment**

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Diploma Project	Defence of Diploma Project	IV

**V. Plan of Educational process**

Code	Educational components	Distribution for terms (semesters)				ECTS Credits	Number of hours				
		Exams	Final tests	Individual task	Module test		Total	Lectures/practical lessons			Self-study
								Lectures	Practical	Laboratory	
1	2	3	4	5	6	7	8	9	10	11	12
1. NORMATIVE educational components											
1.1. General training cycle											
ZO1	Ukrainian Language for Professional Purposes		1		1	2,0	60	18	18		24
ZO2	History of Ukraine		2		2	2,0	60	18	18		24
ZO3	Physical Education		2,4		1,3	5,0	150		144		6
ZO4	Foreign Language		2,4		1,3	6,0	180		144		36
ZO5	Economics and Production Organization		7		7	3,0	90	36	18		36
ZO6	Fundamentals of Labor Safety and Civil Defence		6		6	4,0	120	36	28	8	48

ZO7	Higher Mathematics	1,2,3		1,2,3	1,2,3	18,0	540	162	162		216
ZO8	General Physics	1,2		2	1,2	9,0	270	90	18	36	126
ZO9	Computing and Programming	1	2	1,2	1,2	12,0	360	72	36	72	180
ZO10	Engineering Graphics		1	1	1	3,0	90	36	18		36
ZO11	Technical Mechanics		1		1	3,0	90	36	18		36
ZO12	Electrotechnical Materials		2		2	3,0	90	36		18	36
ZO13	Fundamentals of Metrology and Electrical Measurements	3			3	4,0	120	36		18	66
ZO14	Theoretical Fundamentals of Electrical Engineering	2,3		2,3	2,3	10,0	300	90	36	36	138
ZO15	Electric Machines	4		4	4	6,0	180	54	18	36	72
ZO16	Electrical Equipment of Electric Power Stations and Substations	6		6	6	4,0	120	54		18	48
ZO17	Electric Drive	5		5	5	4,0	120	36	18	18	48
ZO18	Electrical Systems and Networks	5		5	5	6,0	180	54		18	108
ZO19	Relay Protection and Automation of Power Systems	7		7	7	4,0	120	36		18	66
<b>1.2. Vocational training cycle</b>											
PO1	Microprocessor and Digital Electronics		3	3	3	3,0	90	36		18	36
PO2	Computer-integrated Technologies in Electric Power Engineering		3		3	4,5	135	36		36	63
PO3	Electric Apparatus	4			4	5,5	165	54	18		93
PO4	Systems of Automatic Control of Technological Complexes		5,6		5,6	7,0	210	90	36		84
PO5	Insulation of Electrotechnical Equipment	7	8		7	8,0	240	54		36	150
PO6	Electrotechnology Installation and Systems		3			2,5	75	36	18		21
PO7	Computing Automation Tools of Electrotechnological Complexes and Systems	7	8		7,8	7,0	210	72		36	102
PO8	Power Conversion Equipment		5		5	4,0	120	54		18	48
PO9	Additional Sections of Theory of Electric and Magnetic Circuits	4		4	4	6,0	180	36	36	18	90
PO10	Power Transformers		5			1,5	45		18		27
PO11	District Electrical Networks		6			1,5	45		18		27
PO12	Electrical Equipment of Electric Power Stations		7			1,5	45		18		27
PO13	Course Work on Electric Apparatus		4			1,0	30				30
PO14	Course Work on Electrotechnology Installation and Systems		3			1,0	30				30
PO15	Course Project on Power Transformers		5			1,5	45				45
PO16	Course Project on Electrical Equipment of Electric Power Stations		7			1,5	45				45
PO17	Course Project on District Electrical Networks		6			1,5	45				45
PO18	Course Project on Insulation of Electrotechnical Equipment		8			1,5	45				45
PO19	Pre-diploma Practice		8			6,0	180				180
PO20	Diploma Project					6,0	180				180
<b>TOTAL of NORMATIVE educational components</b>		<b>18</b>	<b>30</b>	<b>16</b>	<b>36</b>	<b>180</b>	<b>5400</b>	<b>1368</b>	<b>856</b>	<b>458</b>	<b>2718</b>
<b>2. ELECTIVE educational components</b>											
<b>2.1. General training cycle (Optional subjects from University catalogue)</b>											
ZV1	Optional subject #1 from U-Catalogue		4		4	2	60	18	18		24

ZV2	Optional subject #2 from U-Catalogue		4		4	2	60	18	18		24
ZV3	Optional subject #3 from U-Catalogue		3	3	3	2	60	18	18		24
ZV4	Optional subject #4 from U-Catalogue		6		6	2	60	18	18		24
ZV5	Foreign Language for Professional Purposes	8	6		5,7	6	180		126		54
<b>2.2. Vocational training cycle (Optional subjects from Faculty catalogue)</b>											
PV1	Optional subject #1 from F-Catalogue		3		3	3	90	36		18	36
PV2	Optional subject #2 from F-Catalogue		4		4	2	60	36			24
PV3	Optional subject #3 from F-Catalogue		4		4	2,5	75	36		18	21
PV4	Optional subject #4 from F-Catalogue	5			5	4	120	36		18	66
PV5	Optional subject #5 from F-Catalogue	6			6	4	120	36		18	66
PV6	Optional subject #6 from F-Catalogue		5			3,5	105	36		36	33
PV7	Optional subject #7 from F-Catalogue		6			3	90	18		18	54
PV8	Optional subject #8 from F-Catalogue	6			6	5,5	165	54		36	75
PV9	Optional subject #9 from F-Catalogue		7			2	60	18		18	24
PV10	Optional subject #10 from F-Catalogue		8			2	60	18		18	24
PV11	Optional subject #11 from F-Catalogue		7	7	7	5,5	165	54		36	75
PV12	Optional subject #12 from F-Catalogue	8				4,5	135	36		18	81
PV13	Optional subject #13 from F-Catalogue	8				4,5	135	36		18	81
<b>TOTAL of ELECTIVE educational components</b>		6	13	2	13	60	1800	522	198	270	810
<b>TOTAL</b>		24	43	18	49	240	7200	1890	1054	728	3528

Approved by University Academic Council, Meeting protocol № \_\_ from \_\_\_\_\_ 2020

Head of the Department \_\_\_\_\_ / Mykola Ostroverkhov /

Dean of the Faculty \_\_\_\_\_ / Oleksandr Yandulsky /