



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

CURRICULUM

(Enrolment 2021)

APPROVED

by Academic Council

Igor Sikorsky Kyiv Polytechnic Institute

(meeting protocol №_3_ from _15.03_ 2021)

Head of Academic Council

Mykhaylo ILCHENKO

2021

Level

Bachelor

Form of study

full-time

(full-time, part-time)

Speciality

144 Heat power

Qualification

Bachelor degree

Study duration

3 years 10 months

Educational and Professional program

Heat Power and Heat Power Units of Power Plants

Base level

Full Secondary Education

Graduation Department

Department of Heat and Power Engineering

Faculty (Institute)

Faculty of Heat and Power Engineering

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																						

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	5				11	52
IV	27	3	5	2	4	2	43

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma Practice	8	5

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Diploma designing	Protection of the diploma project	8

V. Plan of Educational process

Code	Subjects	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											
GM 1	Higher Mathematics	1.2		1.2	1.2	17	288	144	144		222
GM 2	Physics	1.2		1.2	1.2	10	162	72	54	36	138
GM 3	Engineering Graphics	1	2	1.2	1.2	7.5	126	36	72	18	99
GM 4	Language culture and business speech		2		2	2	36	18	18		24
GM 5	Material Science and Technology of Materials		1	1	1	3.5	54	36	9	9	51
GM 6	Basics of a healthy lifestyle		2		1	3	72	18	54		18
GM 7	Foreign Language		2.4		1.3	6	144		144		36
GM 8	Chemistry		2		2	4	72	36		36	48
GM 9	Theoretical Mechanics	2		2	2	4	63	36	27		57
GM 10	Ukraine in the context of the historical development of		1		1	2	36	18	18		24

GM 11	Fundamentals of Electric Engineering and Electronics		2	2	2	4	72	36	18	18	48
GM 12	Hydro-gas Dynamics	3		3	3	6	90	54	36		90
GM 13	Information Technologies		3.4	3.4	3.4	6.5	117	45	36	36	78
GM 14	Technical Thermodynamics	4	3	3.4	3.4	9.5	162	90	63	9	123
GM 15	Heat and Mass Exchange	4.5		4.5	4.5	11.5	171	90	72	9	174
GM 16	Course Work on Heat and Mass Exchange		5			1					30
GM 17	Economics and Production Organization		7		7	4	72	36	36		48
GM 18	Labor Occupational Safety and Civil Defense		7		7	4	72	36	28	8	48
GM 19	Foreign Language for Professional Purposes	8	6		5.7	6	126		126		54
GM 20	Engineering ecology of energy		4		4	2	36	18	18		24
GM 21	Introduction to philosophy		3		3	2	36	18	18		24
GM 22	Labor Law		5		5	2	36	18	18		24
total number of part 1.1		11	19	16	29	117.5	2043	855	1009	179	1482
1.2. Vocational training cycle											
VM 1	Technical Mechanics	3	4	3	3.4	6	90	54	36		90
VM 2	Combustion of fuel and equipment for its combustion	4		4	4	5	72	36	36		78
VM 3	Boiler Systems	7.8		7.8	7.8	6.5	72	36	18	18	123
VM 4	Course Project on Boiler Systems		8			1.5					45
VM 5	Turbines of Thermal and Nuclear Power Plants	5	6	5.6	5.6	6	90	54	18	18	90
VM 6	Course Work on Turbines of Thermal and Nuclear Power Plants		6			1.5					45
VM 7	Thermal and Nuclear Power Plants and Installations	6	7	6.7	6.7	7	108	54	36	18	102
VM 8	Heat Engineering Processes and Equipment	6.7		6.7	6.7	7	90	54	36		120
VM 9	Heat Engineering Measurements	3		3	3	4	54	36		18	66
VM 10	Unconventional energy sources		3	3	3	2.5		18	18		75
VM 13	Superchargers and heat engines		4	4	4	3.5	54	18	18	18	51
VM 12	Pre-Diploma Practice		8			6					180
VM 13	Diploma Project					6					180
total number of part 1.2		8	9	9	13	62.5	630	360	216	90	1245
TOTAL of NORMATIVE educational components		19	28	25	42	180	2673	1215	1225	269	2727
2. Optional educational components											
2.1. General training cycle (Optional educational components from University catalog)											
GO 1	Educational component 1. U-Catalog		3		3	2	36	18	18		24
GO 2	Educational component 2. U-Catalog		4		4	2	36	18	18		24
total number of part 2.1			2		3	4	72	36	36		48
2.2. Vocational training cycle (Optional educational components from faculty / department catalogs)											
VO 1	Educational component 1. F-Catalog		5	5	5	4	72	36	36		48
VO 2	Educational component 2. F-Catalog		5	5	5	4	72	36	36		48
VO 3	Educational component 3. F-Catalog		5	5	5	4	72	36	36		48
VO 4	Educational component 4. F-Catalog		5	5	5	4	72	36	36		48
VO 5	Educational component 5. F-Catalog		6	6	6	4	72	36	36		48
VO 6	Educational component 6. F-Catalog		6	6	6	4	72	36	36		48
VO 7	Educational component 7. F-Catalog		6	6	6	4	72	36	36		48
VO 8	Educational component 8. F-Catalog		6	6	6	4	72	36	36		48
VO 9	Educational component 9. F-Catalog		7	7	7	4	72	36	36		48
VO 10	Educational component 10. F-Catalog		7	7	7	4	72	36	36		48
VO 11	Educational component 11. F-Catalog		7	7	7	4	72	36	36		48
VO 11	Educational component 11. F-Catalog		8	8	8	4	54	36	18		66
VO 13	Educational component 11. F-Catalog		8	8	8	4	54	36	18		66
VO 14	Educational component 12. F-Catalog		8	8	8	4	54	36	18		66
total number of part 2.2			14	15	15	56	954	504	450		726
TOTAL of OPTIONAL educational components			16	15	18	60	1026	540	486		774
TOTAL		19	44	40	60	240	3699	1755	1711	269	3501

Approved by University Academic Council, Meeting protocol № 3 from March 15, 2021

Act. Head of the Department _____/Olga CHERNOUSENKO/

Dean of the Faculty (Director of the Institute) _____/Yevhen PYSMENNY/