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 № __ from _____ 2021)

Head of Academic Council

Mykhaylo ILCHENKO

Level Doctor of Philosophy
(Name of Educational Level)

Field of Knowledge 14 Electrical Engineering
(Code and Name)

Specialty 143 Nuclear Power Engineering
(Code and Name of the Specialty)

Educational and Scientific program Nuclear Energy
Name

Form of Study Full-Time (full-time, evening)

Duration of Study 4 years

Basic Level Master degree
(Educational Level)

Scope of Educational Component	50 ECTS Credits

Schedule of Study

YEAR	October					November				December					January				February				March				April				May				June				July				August				September			
	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	E	R	R	RT	RT	RT																E	E	H	H	H	H	H	H	H	H	H	H	R	RT	RT	RT
II												I	I	E	E	E	R	R	RT	RT	RT																E	E	H	H	H	H	H	H	H	H	H	H	R	RT	RT	RT
III	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RT	RT	RT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	H	H	H	H	H	H	H	H	H	H	R	RT	RT	RT
IV	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RT	RT	RT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	H	H	H	H	H	H	H	H	H	H	R	RT	RT	RT

Symbols: Learning period | E Examination | I Internship | R Research | RT Report | A Assessment | H Holiday

I. Educational Component

Summary Table of Time Budget (Weeks)

YEAR	Learning period	Examination	Internship	Holiday	Total
I	28	5		9	42
II	26	5	2	9	42
II	26	5	2	9	42

Practice

Type of Practice	Semester	Weeks
Pedagogical Practice	3	2

Plan of Educational process

Code	Educational components (academic disciplines, course projects (works), practices, qualification work)	Distribution for terms (semesters)				ECTS Credits	Number of hours					
		Exams	Final Tests	Individual Task	Module Test		Total Scope	Classroom				Self-study
								Total	including			
									Lections	Practical	Laboratory	
1. Normative components												
Educational disciplines for mastering general-scientific (philosophical) competencies												
3O1	Philosophical principles of scientific activity	2	1	2	1	6	180	80	31	49		100
Educational disciplines for acquiring language competencies												
3O2	Foreign language for scientific activity	2	1	1	2	6	180	75		75		105
Educational disciplines for obtaining in-depth knowledge of the specialty												
3O3	Methods of intensification of heat and mass transfer processes in heterogeneous systems	1		1	1	4	120	39	39			81
3O4	Kinetics of phase transformations in power equipment	2			2	4	120	54	54			66
3O5	Three-dimensional modeling of transients in WWER-1000 reactors	3			3	4	120	39	26	13		81
3O6	Turbulance Theory	4		4	4	4	120	54	54			66
Educational disciplines for the acquisition of universal competencies of the researcher												
3O7	Scientific and innovative activities organization	1		1		3	90	26	13	13		64
3O8	Modeling of three-dimensional tasks of hydrodynamics and heat exchange in power equipment		2	2	2	3	90	36		36		54
3O9	Pedagogical practice		3			2	60					
	TOTAL Normative Components	7	4	6	7	36	1080	403	217	186		617
2. Elective components												
B1	Educational component 1. IF- Catalog	3			3	7	210	65	52	13		145
B2	Educational component 2. IF- Catalog	4			4	7	210	72	54	18		138
	TOTAL of ELECTIVE Components	2			2	14	420	137	106	31		283
	Total Number	9	4	6	9	50	1500	540	323	217		900

2. Scientific component

Plan of Scientific Work

Year	The content of the graduate student's scientific work	Forms of control (Reporting)
1st year	The choice of the topic of the graduate student's dissertation, the formation of an individual work plan of the graduate student; execution of the dissertation work under the guidance of the scientific supervisor; preparation and submission for publicatio	Approval by the academic council of the institute / faculty by 30.11.2021, reporting on the implementation of the individual plan of the graduate student twice a year.
2nd year	Execution under the guidance of the supervisor of the dissertation; preparation and submission for publication of at least 1 publication for the dissertation topic in accordance with current requirements.	Reporting on the implementation of the individual plan of the graduate student twice a year.
3rd year	Execution under the guidance of the supervisor of the dissertation; preparation and submission for publication of at least 1 publication for the dissertation topic in accordance with current requirements.	Reporting on the implementation of the individual plan of the graduate student twice a year.
4th year	Completion of the dissertation, summarizing the results of publications (at least three) on the topic of the dissertation in accordance with current requirements. Submission of documents for preliminary examination of the dissertation. Graduation certif	Reporting on the implementation of the individual plan of the graduate student twice a year. Providing an opinion on the scientific novelty, theoretical and practical significance of the dissertation results. PhD thesis defense.

Head of the SMB of Speciality _____ / *Yevgen PYSMENNYY* /
(Signature) (Name)

Head of the NPS and ETP Department _____ / *Valery TUZ* /
(Signature) (Name)

Dean of the Heat and Power Engineering Faculty _____ / *Yevgen PYSMENNYY* /
(Signature) (Name)