



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 142 Power Machinery
 (Code and Name of the Specialty)
 Educational and Scientific program Power Machinery
 Name
 Duration of Study 4 years
 Basic Level Master degree
 (Educational Level)
 Form of Study Full-Time (full-time, evening)

Scope of Educational Component **50 ECTS Credits**

Schedule of Study

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

Symbols: Learning period Examination Internship Research Report Assessment 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
III	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	Lectures	Practical Laboratory	
1. Normative components											
<i>Educational disciplines for mastering general-scientific (philosophical) competencies</i>											
ZO1	Philosophical principles of scientific activity	2	1	2	1	6	180	80	31	49	100
<i>Educational disciplines for acquiring language competencies</i>											
ZO2	Foreign language for scientific activity	2	1	1	2	6	180	75		75	105
<i>Educational disciplines for obtaining in-depth knowledge of the specialty</i>											
PO1	Methods of intensification of heat and mass transfer processes in heterogeneous systems	1		1	1	4	120	39	39		81
PO2	Kinetics of phase transformations in power equipment	2			2	4	120	54	54		66
PO3	Transfer theory	3			3	4	120	39	33	6	81
PO4	Turbulence Theory	4		4	4	4	120	54	54		66
<i>Educational disciplines for the acquisition of universal competencies of the researcher</i>											
PO5	Scientific and innovative activities organization	1		1		3	90	26	13	13	64
PO6	Modeling of three-dimensional tasks of hydrodynamics and heat exchange in power equipment		2	2	2	3	90	36		36	54
PO7	Pedagogical practice		3			2	60				
TOTAL Normative Components		7	4	6	7	36	1080	403	224	179	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	330	210	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 publication	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 _____ / **Valery TUZ** /
 (Signature) (Name)
 Head of the NPS and ETP Department _____ / **Valery TUZ** /
 (Signature) (Name)
 Dean of the Heat and Power Engineering Faculty _____ / **Yevgen PYSMENYY** /
 (Signature) (Name)