## MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

## **SUMY NATIONAL AGRARIAN UNIVERSITY**

"APPROVED"	Degree Doctor of philosophy
	Studying period 4 years
RectorV.Ladyka	Previous level Master
20	
	STUDYING PLAN 2020-2021

R TD

3

Semester Weeks

6

Research

Thesis defending

# PhD degree in the program subject area 133 "Industrial machinery engineering" full-time studying

# 1. SCHEDULE OF TEACHING PROCESS

Ye	ar	weeks			" l "	.	5 L 5	ج ا	ဋ		
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 8 9 10 11 12 13 14 15 16 17 18 19 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							ţio	win	Разом
		October November December January February March April May June July August S	September	] ∻ [	as   as	۱ ۱	eac rair The	ese	aca	The	I asom
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	II		R R R	Ш				44	8		52
	Ш		R R R	III			3	41	8		52
	IV		TD TD TD	IV			5	26		21	52

TR Thesis reviewing

#### Abbreviation

Teaching training

C Classes E Exams		V TT	Vacations Teaching training
2 . Practical tra	aining		
	Title		

Teaching training

## 3. Graduation

Title	Semester
PhD thesis defending	8

# 4. CURRICULUM

					Amount of hours													
	Title of discipline	Assessment φ				classes				Hours per week								
				တ		including		1										
				ECTS						work	1 year		2	year	3 year		4 year	
Nº		Exams	Credits	Amount of	Total	studying hours	lectures	seminars	consultations	individual w	1 semester 10 weeks	2 semester 15 weeks	3 semester	4 semester	5 semester	6 semester	7 semester	8 semester
					Manda	tory units		•		•			•					
OK.1	Philosophy of science		2	4	120	40	20	20		80	4							
OK.2	Contemporary computer technologies in science	1		3	90	30	14	16		60	3							
OK. 3	Communications in scientific area		2	3	90	30	14	16		60		2						
OK. 4	Methodology of conducting scientific researches	2		3	90	30	14	16		60		2						
OK. 5	Tribotechnics	1		3	90	30	14	16		60	3							
OK. 6	Modeling and planning scientific experiment		1	3	90	30	14	16		60	3							
OK.7	Registration of intellectual property rights		1	3	90	30	14	16		60	2							
OK. 8	Design and delivery of course unit	2		3	90	30	14	16		60		2						
OK. 9	Ukrainian language		1,2	4	120	60		60		60	3	2						
OK. 10	Scientific project management	1		3	90	30	14	16		60								
OK. 11	English in professional area		1,2	4	120	60		60		60	3	2						
OK. 12	Methodology of PhD thesis writing		2	3	90	30	14	16		60		2						
OK. 13	Practice in Teaching		6	3	90	30		30		60						3		
Total by n	nandatory units			42	1260	460	146	314	0	800	21	12				3		
	Elective units																	
BK.1	Elective unit 1	2		5	150	46	16	30		104		3						
BK.2	Elective unit 2		2	5	150	46	16	30		104		3						
BK.3	Elective unit 3		2	5	150	46	16	30		104		3						
Total by e	lective units			15	450	138	48	90	0	312		9						
	tadying plan			57	1710	598	194	404	0	1112	21	21				3		

### List of elective units

Modeling and optimization of technical systems
The theory of optimization of complexes and systems of machines
Fundamentals quality research of technological operations

Evaluation of the quality of field work in crop production

Optimal and adaptive systems Optimization of machine complexes and systems	
Programme leader	 
Head of Postgraduate and Doctoral Programmes Department	 