IV. PLAN OF EDUCATIONAL PROCESS

N	TITLE OF EDUCATIONAL DISCIPLINE, PRACTICE, ATTESTATION	Forms of semester		Number of credits	Number of hours					
		Exams	Tests		Total number	Classroom				independent work
						Total	including:			
							Lectures	Practical, seminars	Laboratory	
1	2	3	4	5	6	7	8	9	10	11
4.1. GENERAL TRAINING CYCLE										
4.1.1. MANDATORY EDUCATIONAL DISCIPLINES										
1.1	Philosophy	2	1	6	**180**	*64*	32	32		116
1.2	English for scientific communication	3	1,2	9	**270**	*96*		96		174
1.3	Methodology and methods of scientific research	2	1	6	**180**	*64*	32		32	116
Total compulsory disciplines		**3**	**4**	**21**	**630**	**224**	**64**	**128**	**32**	**406**
4.1.2. EDUCATIONAL DISCIPLINES FOR THE FREE SELECTION OF PHD STUDENT										
1.4	Fundamentals of structuring scientific research, preparation of the manuscript and defense of the thesis Methodology for presenting the results of scientific research		1	3	**90**	*32*	16	16		58
1.5	Management of scientific projects in mechanical engineering Grant activity		3	3	**90**	*32*	16	16		58
Total for the PhD student choice			**2**	**6**	**180**	**64**	**32**	**32**	**0**	**116**
Total for the general training cycle		**3**	**6**	**27**	**810**	**288**	**96**	**160**	**32**	**522**
4.2. PROFESSIONAL PREPARATION CYCLE										
4.2.1. MANDATORY EDUCATIONAL DISCIPLINES										
1.6	Statistical methods of information processing	4		3	**90**	**32**	16		16	58
1.7	Mathematical and simulation modeling of complex systems	4	3	6	**180**	**64**	32		32	116
1.8	Information systems and technologies in scientific activity		2	3	**90**	**32**	16		16	58
1.9	Protecting technology		5	3	**90**	**32**	16	16		58
1.10	Experimental methods of research in mechanical engineering	5		6	**180**	**64**	32		32	116
Total compulsory disciplines		**3**	**3**	**21**	**630**	**224**	**112**	**16**	**96**	**406**
4.2.2. EDUCATIONAL DISCIPLINES FOR THE FREE SELECTION OF PHD STUDENT										
1.11	Mathematical modeling of processes and systems of mechanics Mathematical methods of optimization of technological processes and systems	5		3	**90**	*32*	16		16	58
1.12	Advanced technologies in mechanical engineering Resource-saving processes and systems of applied mechanics		4	3	**90**	*32*	16	16		58
1.13	Information technology of applied mechanics Information technology for designing of the technological equipment		3	3	**90**	*32*	16	16		58
Total for a free choice of PhD student		**1**	**2**	**9,0**	**270,0**	**96,0**	**48,0**	**32,0**	**16,0**	**174,0**
4.2.3. PRACTICE (included in total credits)										
1.14	Scientific and pedagogical practice		8	3	**90**	**0**				90
Total practice			**1**	**3**	**90**	**0**		**0**	**0**	**90**
Total for the professional cycle		**4**	**6**	**33**	**990**	**320**	**160**	**48**	**112**	**670**
Total number		**7**	**12**	**60**	**1800**	**608**	**256**	**208**	**144**	**1192**

N	Розподіл часу в годинах на тиждень та кредитах за курсами і семестрами																			
	I year										II yearI									
	Semesters																			
	1					2					3					4				
	With the number of weeks in the semester																			
	16					16					16					16				
	Hours				Credits	Hours				Credits	Hours				Credits	Hours				Credits
	Lectures	Practical, seminars	Laboratory	independent work		Lectures	Practical, seminarsi	Laboratory	independent work		Lectures	Practical, seminars	Laboratory	independent work		Lectures	Practical, seminars	Laboratory	independent work	
1	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1.1	16	16		58	**3,0**	16	16		58	**3,0**										
1.2		32		58	**3,0**		32		58	**3,0**		32		58	**3,0**					
1.3	16		16	58	**3,0**	16		16	58	**3,0**										
Total compulsory disciplines	**32**	**48**	**16**	**174**	**9**	**32**	**48**	**16**	**174**	**9**	**0**	**32**	**0**	**58**	**3**	**0**	**0**	**0**	**0**	**0**
1.4	16	16		58	**3,0**															
1.5											16	16		58	**3**					
Total for the PhD student choice	**16**	**16**	**0**	**58**	**3**	**0**	**0**	**0**	**0**	**0**	**16**	**16**	**0**	**58**	**3**	**0**	**0**	**0**	**0**	**0**
Total for the general training cycle	**48**	**64**	**16**	**232**	**12**	**32**	**48**	**16**	**174**	**9**	**16**	**48**	**0**	**116**	**6**	**0**	**0**	**0**	**0**	**0**
1.6																16		16	58	3
1.7											16		16	58	3	16		16	58	3
1.8						16		16	58	3										
1.9																				
1.10																				
Total compulsory disciplines	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**16**	**58**	**3**	**16**	**0**	**16**	**58**	**3**	**32**	**0**	**32**	**116**	**6**
1.11																				
1.12																16	16		58	**3**
1.13											16	16		58	**3**					
Total for a free choice of PhD student	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**16**	**0**	**58**	**3**	**16**	**16**	**0**	**58**	**3**
1.14																				
Total practice	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total for the professional cycle	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**16**	**58**	**3**	**32**	**16**	**16**	**116**	**6**	**48**	**16**	**32**	**174**	**9**
Total number	**48**	**64**	**16**	**232**	**12**	**48**	**48**	**32**	**232**	**12**	**48**	**64**	**16**	**232**	**12**	**48**	**16**	**32**	**174**	**9**

N	Розподіл часу в годинах на тиждень та кредитах за курсами і семестрами																			
	III year										IV year									
	Semesters																			
	5					6					7					8				
	With the number of weeks in the semester																			
	16					16					16					16				
	Hours				Credits	Hours				Credits	Hours				Credits	Hours				Credits
	Lectures	Practical, seminars	Laboratory	independent work		Lectures	Practical, seminars	Laboratory	independent work		Lectures	Practical, seminars	Laboratory	independent work		Lectures	Practical, seminars	Laboratory	independent work	
1	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1.1																				
1.2																				
1.3																				
Total compulsory disciplines	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.4																				
1.5																				
Total for the PhD student choice	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total for the general training cycle	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.6																				
1.7																				
1.8																				
1.9	16	16		58	3															
1.10	32		32	116	6															
Total compulsory disciplines	**48**	**16**	**32**	**174**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.11	16		16	58	**3**															
1.12																				
1.13																				
Total for a free choice of PhD student	**16**	**0**	**16**	**58**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.14																			90	3
Total practice	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**3**
Total for the professional cycle	**64**	**16**	**48**	**232**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**3**
Total number	**64**	**16**	**48**	**232**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**3**

	1	2	3	4	5	6	7	8	**Total**
umber of classroom hours per semeste	**128**	**128**	**128**	**96**	**128**	**0**	**0**	**0**	
Number of exams	0	2	1	2	2	0	0	0	**7**
Number of tests	4	2	3	1	1	0	0	1	**12**