



Faculty (Institute)	Institute of Mechanical Engineering
Form of study	full-time
Study duration	1 years 4 months
Qualification	2145.1 Researcher

Specialty	- <u>131 - Applied mechanics</u>
Specialization	- <u>Dynamics and Strength of Machines</u>
for an educational professional program of	<u>master's training</u>
Level	- <u>Master</u>
Graduation Department	- <u>Department of dynamics and strength of machines and strength of materials</u>

Qualification 2145.1 Researcher

Code	Subjects	Department	Amount		Lectures/ Practical								Self-study	Control measures and their distribution by semester											Distribution of class hours per week by courses and semesters									
			Number of credits	Number of hours	Total according to curriculum with individual lessons	Lectures according to curriculum with individual classes	Practical according to curriculum with individual classes	Laboratory according to curriculum with individual lessons	Individual lessons	1 Course											1 Course													
										MP-71mp(9-0)											1 Course													
										1 semester					2 semester					1 semester					2 semester									
										18 weeks					18 weeks					18 weeks					18 weeks									
Exams	Final tests	Modular, test works	Course projects	Coursework	Personal assignment	Home tests	Preparations	Total	Lectures	Practical	Laboratory	Total	Lectures	Practical	Laboratory	Total	Lectures	Practical	Laboratory	Total	Lectures	Practical	Laboratory	Total	Lectures	Practical	Laboratory	Total						
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					
I. GENERAL TRAINING																																		
I.1. Basic training (major courses)																																		
1	Intellectual Property and Patented Science	Department of Design of Machine Tools and Machines	3	90	54	36		18					36	1	1							3	2	1										
total number of part 1.1.			3	90	54	36	18						36	1	1							3	2	1										
I.2. Basic training (optional courses)																																		
2	Fundamentals of Engineering and Sustainable Technology	Department of Cybernetics of chemical and technological processes	2	60	36	18	18						24	1							1	2	1	1										
3	Workshop on foreign language scientific communication	Department of the English Language of Technical Orientation № 2	3	90	72		72						18	2							1	2		2	2		2		2					
4	Project management in high technology engineering	Department of dynamics and strength of machines and strength of materials	3	90	54	18		36					36	2													3	1	2					
total number of part 1.2.			8	240	162	36	126						78	3							2	4	1	3	5	1	4							
I.3. Science Research (optional courses)																																		
5	Scientific work on the topic of master's thesis 1. Basics of the scientific research	Department of dynamics and strength of machines and strength of materials	2	60	27	9	18						33	1								1,5	0,5	1										
6	Scientific work on the topic of master's thesis1. Scientific work on the topic of master's thesis	Department of dynamics and strength of machines and strength of materials	2	60	18		18						42	2											1		1							
total number of part 1.3.			4	120	45	9	36						75	2								1,5	0,5	1	1	1	1							
TOTAL IN GENERAL TRAINING			15	450	261	81	180						189	6	1						2	8,5	3,5	5	6	1	5							
II. VOCATIONAL TRAINING																																		
II.1. Vocational and practical training (major courses)																																		
7	Statistical dynamics and reliability 1. Probability theory and stochastic processes	Department of dynamics and strength of machines and strength of materials	4,5	135	81	45	36						54	1d						1		4,5	2,5	2										
8	Statistical dynamics and reliability 2. Dynamics and reliability	Department of dynamics and strength of machines and strength of materials	5,5	165	72	36	36						93	2						2					4	2	2							
9	Experimental methods of research 1. Methods of determining the mechanical characteristics of materials and test equipment	Department of dynamics and strength of machines and strength of materials	4	120	54	36		18					66	1							3	2		1										
10	Experimental methods of research 2. Methods of measurement; indicating and automation systems	Department of dynamics and strength of machines and strength of materials	5	150	72	36	36						78	2											4	2		2						
total number of part 2.1.			19	570	279	153	72	54					291	3	1d					2		7,5	4,5	2	1	8	4	2	2					
II.2. Vocational and practical training (optional courses)																																		
11	The theory of oscillation and stability of motion 1.	Department of dynamics and strength of machines and strength of materials	1	30	9		9						21	1							0,5		0,5											
12	The theory of oscillation and stability of motion 2. Coursework	Department of dynamics and strength of machines and strength of materials	1,5	45									45		1																			
13	Numerical methods for dynamics and strength of machines 1.	Department of dynamics and strength of machines and strength of materials	1,5	45	27	9		18					18	1							1,5	0,5		1										
14	Numerical methods for dynamics and strength of machines 2. Coursework	Department of dynamics and strength of machines and strength of materials	1	30									30			2																		
15	Fatigue of materials	Department of dynamics and strength of machines and strength of materials	4	120	54	36	18						66	1							3	2	1											
16	Design and calculation of elements of aviation constructions 1. Calculation of aviation structures for durability	Department of dynamics and strength of machines and strength of materials	2	60	18			18					42	1d			1				1			1										
17	Design and calculation of elements of aviation constructions 2. Basis of design of the structure of the aircraft	Department of dynamics and strength of machines and strength of materials	3	90	54	36		18					36	2d			2								3	2		1						
18	Information systems and technologies in aircraft building 1. Information technologies of aviation engineering	Department of dynamics and strength of machines and strength of materials	3	90	36	18		18					54	1					1			2	1		1									
19	Information systems and technologies in aviation engineering. 2. Information systems of design and engineer analysis	Department of dynamics and strength of machines and strength of materials	6	180	90	45		45					90	2d			2								5	2,5						3		
20	Strength and destruction of structural elements	Department of dynamics and strength of machines and strength of materials	3	90	36	30	6						54	2											2	1,7	0,3							
total number of part 2.2.			26	780	324	174	33	117					456	3	2;3d	1	1	4			8	3,5	1,5	3	10	6,2	0,3	4						
TOTAL IN VOCATIONAL TRAINING			45	1350	603	327	105	171					747	6	2;4d	1	1	4	2		16	8	3,5	4	18	10	2,3	6						
TOTAL			60	1800	864	408	285	171					936	6	8;4d	1	1	4	2	2	24	11,5	8,5	4	24	11,2	7,3	5,3						
Number	exams																																	
	final tests																																	
	modular, test works																																	
	course projects																																	
	number of courseworks																																	
	personal assignment																																	
home tests																																		
Abstracts																																		
1	Civil Protection	Department of labor protection of industrial and civil security	1	30	18	10		8					12	1							1	0,6	0,4											

Approved at the Meeting of the Institute's Academic Council No. 8 on 27/03/2017

Head of the Department / Babenko A. / Dean of the Faculty (Director of the Institute) / Bobyr M.

NOTE: compiled for each academic year separately in accordance with the curriculum.