



National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

# STUDY PLAN

for the 2018/2019 academic year  
(Enrolment 2018)

APPROVED  
by first Vice-rector of Igor Sikorsky Kyiv Polytechnic Institute

Specialty 131 - Applied mechanics  
Specialization Information systems and technologies in aircraft engineering  
for an educational professional program of master's training  
Level Master  
Graduation Department Department of dynamics and strength of machines and strength of materials

Faculty (Institute) Institute of Mechanical Engineering  
Form of study Full-time  
Study duration 1 years 4 months

Y. Yakymenko  
2018

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 classes	Lectures according to curriculum with individual classes	Practical according to curriculum with individual classes	Laboratory according to curriculum with individual classes	Individual lessons	Exams	Final tests	Modular, test works		Course projects	Coursework	personal assignment	home tests	Preparation	1 Course												
																			MP-82mp(9+0)												
																			1 semester			2 semester									
																			18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks							
			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 1. Intellectual property rights	Department of Information Law and Intellectual Property Rights	1	30	18	12		6						12									1	0,7	0,3						
2	Intellectual Property and Patented Science 2. Patent law and acquisition of rights	Department of Design of Machine Tools and Machines	2	60	36	24		12						24	1	1							2	1,3	0,7						
total number of part 1.1.			3	90	54	36		18						36	1	1							3	2	1						
I.2. Basic training (optional courses)																															
3	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						
4	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				
5	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)																															
6	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							
7	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			
TOTAL IN GENERAL TRAINING			15	450	261	81		180						189	6	1						2	9	4	5		6	1	5		
II. VOCATIONAL TRAINING																															
II.1. Vocational and practical training (major courses)																															
8	Statistical methods in mechanics 1. Probability theory, probabilistic processes and their application	Department of dynamics and strength of machines and strength of materials	4,5	135	81	45		36						54	1							1	4,5	2,5	2						
9	Statistical methods in mechanics 2. Reliability of mechanical systems	Department of dynamics and strength of machines and strength of materials	5,5	165	72	36		36						93	2						2					4	2	2			
10	Experimental Mechanics 1. Mechanical characteristics and methods of their determination	Department of dynamics and strength of machines and strength of materials	4	120	54	36				18				66	1							3	2		1						
11	Experimental Mechanics 2. Means of Measurement and Automation	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	1						2	7,5	4,5	2	1	8	4	2	2	
II.2. Vocational and practical training (optional courses)																															
12	Oscillations and stability of motion of mechanical systems 1.	Department of dynamics and strength of machines and strength of materials	1	30	9			9						21	1							0,5		0,5							
13	Oscillations and stability of motion of mechanical systems 2. Coursework	Department of dynamics and strength of machines and strength of materials	1,5	45										45			1														
14	The Grid Projection Methods in Mechanics I 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						
15	The Grid Projection Methods in Mechanics 2. Coursework	Department of dynamics and strength of machines and strength of materials	1	30										30				2													
16	Strength under non-stationary loads	Department of dynamics and strength of machines and strength of materials	4	120	54	36		18						66	1							3	2	1							
17	Calculation of the strength of aviation structures 1. Supporting structures of aircrafts	Department of dynamics and strength of machines and strength of materials	2	60	18					18				42	1				1			1			1						
18	Calculation of the strength of aviation structures 2. Strength and buckling	Department of dynamics and strength of machines and strength of materials	3	90	54	36				18				36	2				2							3	2		1		
19	Information systems and technologies in aviation engineering 1. Computer technologies of life cycle product support	Department of dynamics and strength of machines and strength of materials	3	90	36	18				18				54	1				1			2	1		1						
20	Information Systems and Technologies in aviation engineering 2. CAD / CAE	Department of dynamics and strength of machines and strength of materials	6	180	90	45				45				90	2				2							5	2,5		2,5		
21	Structural strength	Department of dynamics and strength of machines and strength of materials	3	90	36	27		9						54	2											2	1,5	0,5			
total number of part 2.2.			26	780	324	171		36		117				456	3	5	1	1	4			8	3,5	1,5	3	10	6	0,5	4		
TOTAL IN VOCATIONAL TRAINING			45	1350	603	324		108		171				747	6	6	1	1	4	2		16	8	4	4	18	10	2,5	6		
TOTAL			60	1800	864	405		288		171				936	6	12	1	1	1	4	2	2	24	11,5	8,5	4	24	11	7,5	5,5	
Number of	exams																														
	final tests																														
	modular, test works																														
	course projects																														
	number of courseworks																														
	personal assignment																														
home tests																															
Abstracts																															
Civil Protection																															
Department of labor protection of industrial and civil security			1	30	18	10		8						12	1							1	0,6	0,4							

1	Civil Protection	Department of labor protection of industrial and civil security	1	30	18	10	8					12	1							1	0,6	0,4									
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Approved at the Meeting of the Institute's Academic Council No. 9 on 29/05/2018

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.