



CURRICULUM

(Enrolment 2019)

APPROVED

By Head of Academic Council □
Igor Sikorsky Kyiv Polytechnic Institute
" " 2021

Mykhaylo ILCHENKO

Level Bachelor branch of knowledge 13 Mechanical Engineering Faculty (Institute) Institute of Aerospace Technologies
Speciality 134 Aviation and Rocket-Space Technology Qualification Bachelor in aerospace and space technology
Education and Professional program Aerospace and Rocket Systems Engineering Study duration 3 year 10 month
Form of study full-time Base level Full Secondary Education
Graduation Department Space Engineering

I. Schedule of educational process

Year	September				October				November				December				January				February				March				April				May				June				July				August														
	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	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52							
I							18												E	E	H	H								18														E	E	H	H	H	H	H	H	H	H	H	H				
II							18												E	E	H	H								18														E	E	H	H	H	H	H	H	H	H	H	H				
III							18												E	E	H	H								18														E	E	H	H	H	H	H	H	H	H	H	H				
IV							18												E	E	H	H								9		E	P	P	P	P	P	R	R	R	R	A	A																

Symbols: □ Learning period □ E Examination

□ P Practice □ A Assessment

□ H Holiday

II. Summary table of time budget (Weeks)

Year	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4				12	52
II	36	4				12	52
III	36	5		4	2	12	52
IV	27	3	5	4	2	2	43

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma practice	4	5

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Diploma design	Defense of the diploma design	4

V. Plan of Educational process

Code	Educational Components (Subjects, Course Projects (Works), Practical Training Sessions, Bachelor Thesis)	Distribution for terms (semesters)				ECTS Credits	Number of hours						Self-study
		Examinations	Final tests	Individual task	Module test		The total amount of	Classroom			Laboratory		
								Total	including				
									Lectures	Practical			
1	2	3	4	5	6	7	8	9	10	11	12	13	
1. Compulsory education components													
1.1. General training cycle													
GE 1	Ukrainian Language for Specific Purposes		2		2	2	60	36	18	18		24	
GE 2	History of Science and Technology		1		1	2	60	36	18	18		24	
GE 3	Basics of a healthy lifestyle		2,4		1,3	5	150	144		144		6	
GE 4	Foreign Language		2,4		1,3	6	180	144		144		36	
GE 5	Economics and Management of Enterprise		7		7	4	120	72	36	36		48	
GE 6	Labor Safety and Civil Defence		7		7	4	120	72	36	28	8	48	
GE 7	Business Law		5		5	2	60	36	18	18		24	
GE 8	Foreign language for professional purposes	8	6		5,7	6	180	126		126		54	
Total number of part 1.1:		1	10	0	11	31	930	666	126	532	8	264	
1.2. Vocational training cycle													
PE 1	Higher Mathematics	1,2,3		1,2,3	1,2,3	18	540	288	144	144		252	
PE 2	Physics	1,2			1,2	10	300	162	90	36	36	138	
PE 3	Chemistry		1		1	3	90	45	27		18	45	
PE 4	Theoretical Mechanics	2	3	2,3		11	330	180	108	72		150	
PE 5	Electrical Engineering and Electronics		4			4	120	63	36	9	18	57	
PE 6	Descriptive Geometry	1				3	90	36	18	18		54	

PE 7	Engineering and Computer Graphics		1,2	1,2	1,2	6,5	195	99	36	63		96
PE 8	Theory of Mechanisms and Machines	3		3		4,5	135	63	36	27		72
PE 9	Materials and Constructions Mechanics	4	3	4	3	9	270	144	90	36	18	126
PE 10	Machines Details and Basics of Aircraft Designing	4		4	4	4	120	54	27	27		66
PE 11	Aerohydrodynamics	4			4	4,5	135	63	36	9	18	72
PE 12	Engineering basics of aviation and astronautics		1	1	1	2,5	75	45	36	9		30
PE 13	Aircraft Structure	7			7	4	120	54	36	18		66
PE 14	Course Project in Aircraft Structure		7			1,5	45	0				45
PE 15	Design of satellites	6		6		5	150	72	54	18		78
PE 16	Technical measuring and certification	6			6	4	120	54	36		18	66
PE 17	Metrology and Standardization	5		5		4	120	54	36		18	66
PE 18	Theory of Automatic Control	5		5	5	5	150	72	36	18	18	78
PE 19	Thermodynamics and Heat Transfer		4		4	4	120	72	36	18	18	48
PE 20	Aerodynamics of Aircraft		6		6	4,5	135	72	36	18	18	63
PE 21	Aerospace Materials Science		5		5	4	120	72	54		18	48
PE 22	Flight Dynamics	8			8	3,5	105	45	36	9		60
PE 23	Technology of production of aircraft and engines	5			5	4	120	54	36	18		66
PE 24	Course work in the technology of production of aircraft and engines		5			1	30	0				30
PE 25	Information Technologies and General Methods of Application Software Development	3	1,2		1,2,3	9	270	144	54	18	72	126
PE 26	Design of Rocket and Spacecraft Power Plants		6	6		3,5	105	54	36	18		51
PE 27	Pre-diploma practice		8			6	180	0				180
PE 28	Diploma design					6	180	0				180
Total number of part 1.2:		19	16	15	23	149	4470	2061	1170	603	288	2409
TOTAL IN NORMATIVE education components:		20	26	15	34	180	5400	2727	1296	1135	296	2673
2. Selective education components												
2.1.General training cycle (Selective education components from University catalogue)												
GS 1	Educational component 1 of the U-Catalog		3		3	2	60	36	18	18		24
GS 2	Educational component 2 of the U-Catalog		3		3	2	60	36	18	18		24
GS 3	Educational component 3 of the U-Catalog		4		4	2	60	36	18	18		24
Total number of part 2.1:			3		3	6	180	108	54	54	0	72
2.2. Vocational training cycle (Selective education components from Faculty catalogue)												
PS 1	Educational component 1 of the F-Catalog		3		3	2,5	75	45	27		18	30
PS 2	Educational component 2 of the F-Catalog		4	4	4	3,5	105	63	36	9	18	42
PS 3	Educational component 3 of the F-Catalog		5		5	4	120	72	36		36	48
PS 4	Educational component 4 of the F-Catalog		5		5	4	120	72	36	36		48
PS 5	Educational component 5 of the F-Catalog		6		6	4	120	72	36	36		48
PS 6	Educational component 6 of the F-Catalog		6		6	4	120	72	36	36		48
PS 7	Educational component 7 of the F-Catalog		6		6	4	120	72	36	36		48
PS 8	Educational component 8 of the F-Catalog		7		7	4	120	72	36	36		48
PS 9	Educational component 9 of the F-Catalog		7		7	4	120	72	36	36		48
PS 10	Educational component 10 of the F-Catalog		7		7	4	120	72	36	36		48
PS 11	Educational component 11 of the F-Catalog		7		7	4	120	72	36	36		48
PS 12	Educational component 12 of the F-Catalog		8		8	4	120	36	18	18		84
PS 13	Educational component 13 of the F-Catalog		8		8	4	120	36	18	18		84
PS 14	Educational component 14 of the F-Catalog		8		8	4	120	36	18	18		84
Total number of part 2.2:		0	14	1	14	54	1620	864	441	351	72	756
TOTAL IN Selective educational components:		0	17	1	17	60	1800	972	495	405	72	828
TOTAL		20	43	16	51	240	7200	3699	1791	1540	368	3501

Head of the Department

/ Oleksandr MARYNOSHENKO /

(підпис)

(п.І.Б.)

Director of the Institute

/ Ivan KOROBKO /

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