MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

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

CURRICULUM

(Enrolment 2017)

APPROVED
by Rector of Igor Sikorsky Kyiv Polytechnic Institute

_____ Michael Zgurovsky

_____ 2017

Level	**Master**	**Form of study**	**full-time** (full-time, part-time)
Speciality	**131 Applied Mechanics**	**Institute**	**Mechanical Engineering**
Specialization	**Mechatronic Systems in Mechanical Engineering**	**Qualification**	**Mechanical Engineer**
Profile program	**Educational and Professional**	**Study duration**	**1 year 4 months**
Graduation Department	**Applied Hydro-Aeromechanics and Mechatronics**	**Base level**	**Bachelor degree**

I. Schedule of educational process

YEAR	September				October					November					December				January					January				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																			E	E	H	H																			E	E	H	H	H	H	H	H	H	H	H	H
II	P	P	P	P	P	P	P	P	R	R	R	R	R	R	R	R	R	R	R	R	R	A																															

Symbols: Learning period | E Examination | P Practice | R Research | 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			8		10		18

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma Practice	2	8

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Master's Thesis Implementation	Graduation Project	2

V. Plan of Educational process

Code	Subjects	Distribution for terms (semesters)				ECTS Credits	Number of hours				
		Exams	Final tests	Course projects	Coursework		Total	Lectures/practical lessons: Lectures	Practical	Laboratory	Self-study
1	2	3	4	5	6	7	8	9	10	11	12
I. GENERAL TRAINING											
I.1. Basic training (major courses)											
1/I	Patenting and Intellectual Property		1			3	90	36	18		36
	total number of part I.1		**1**			**3**	**90**	**36**	**18**	**0**	**36**
I.2. Basic training (optional courses)											
2/I	Subject on Sustainable Development Problems		1			2	60	18	18		24
3/I	Workshop on Scientific Communication in Foreign Language		2			3	90		72		18
4/I	Management Subject		2			3	90	18	36		36
	total number of part I.3		**3**			**8**	**240**	**36**	**126**	**0**	**78**
I.3. Science Research (optional courses)											
5/I	Scientific Work on the Topic of Master's Thesis		1, 2			4	120	9	36		75
6/I	Pre-diploma Practice		3			14	420				420
7/I	Master's Thesis Implementation					16	480				480
	total number of part I.3		**3**			**34**	**1020**	**9**	**36**	**0**	**975**
	TOTAL IN GENERAL TRAINING	**0**	**7**	**0**	**0**	**45**	**1350**	**81**	**180**	**0**	**1089**
II. VOCATIONAL TRAINING											
II.1. Vocational and practical training (major courses)											
1/c	Multifunctional Mechatronic Systems in Energy Intensive Processes	1				4	120	36	18		66
2/c	Electro-Hydraulic Control Systems in Mechatronics	2		2		7,5	225	54		36	135
3/c	Design of Intelligent Mechatronic Systems		1	1		7	210	18		63	129
4/c	Monitoring and Control of Mechatronic Systems	1				4	120	18		27	75
5/c	Electro-Pneumatic Control Systems		1			2,5	75	18		18	39
6/c	Modeling and Research of Mechatronic Objects		2			2,5	75	18		18	39
7/c	Logic Control for Mechatronic Systems	2				5	150	18		54	78
8/c	Modular Production Systems	2				5	150	18		54	78
	total number of part II.1	**5**	**3**	**2**		**37,5**	**1125**	**198**	**18**	**270**	**639**
II.2. Vocational and practical training (optional courses)											
1/СВ	Stepper Motors in Mechatronic Systems	1				4	120	18	9	36	57
2/СВ	Diagnosis and Re-Engineering of Mechatronic Systems		2			3,5	105	18		36	51
	total number of part II.2	**1**	**1**			**7,5**	**225**	**36**	**9**	**72**	**108**
	TOTAL IN VOCATIONAL TRAINING	**6**	**4**	**2**		**45**	**1350**	**234**	**27**	**342**	**747**
	TOTAL	**6**	**11**	**2**		**90**	**2700**	**315**	**207**	**342**	**1836**

Approved by Faculty Academic Council, Meeting protocol № 8 from April 27, 2017

Head of the Department _____ **O. F. Luhovs'kyy**

Director of the Institute _____ **M. I. Bobyr**