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
Speciality	122 Computer Science
Specialization	Artificial Intelligence Systems
Profile program	Educational and Scientific
Graduation Department	Mathematical Methods for System Analysis

Form of study	full-time (full-time, part-time)
Faculty (Institute)	Institute for Applied System Analysis
Qualification	Computer Systems Analyst
Study duration	1 year 9 months
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	H
II																			E	E	H	H	P	P	P	P	P	P	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	18	2	5	2	10	2	39

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma Practice	II	5

IV. Graduates assessment

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

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	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
2/I	Methods and Technologies of Computational Intelligence	1			1	5.5	165	54		18	93
3/I	Big Data Processing and Analysis	2				4.5	135	54		18	63
	total number of part I.1	**2**	**1**		**1**	**13**	**390**	**144**	**18**	**36**	**192**
I.2. Basic training (optional courses)											
1/II	Subjects on Sustainable Development Problems		1			2	60	18	18		24
2/II	Pedagogy Subjects		2			2	60	30	6		24
3/II	Subjects on Startup Projects Development		2			3	90	18	36		36
4/II	Workshop on Scientific Communication in Foreign Language		2, 3			4.5	135		108		27
	total number of part I.3		**5**			**11.5**	**345**	**66**	**168**		**111**
I.3. Science Research (optional courses)											
1/III	Fundamentals of Scientific Research		1			2	60	9	18		33
2/III	Scientific Work on the Topic of Master's Thesis		1			5.5	165		18		147
3/III	Pre-diploma Practice		4			9	270				270
4/III	Master's Thesis Implementation					21	630				630
	total number of part I.3		**2**			**37.5**	**1125**	**9**	**36**		**1080**
	TOTAL IN GENERAL TRAINING	**2**	**8**		**1**	**62**	**1860**	**219**	**222**	**36**	**1383**
II. VOCATIONAL TRAINING											
II.1. Vocational and practical training (major courses)											
1/c	Pattern Recognition Systems	3				5	150	36		18	96
2/c	Financial Markets Modeling and Analysis		3d			3.5	105	36	18		51
3/c	Forecasting in Economics and Finance		3			3.5	105	36	18		51
4/c	Cognitive Modeling		1d			3	90	36	18		36
5/c	Intelligent System for Decision-Making		2			3	90	36	18		36
6/c	High-Local Distributed Computer Systems	1				4	120	36		18	66
7/c	Fuzzy Models and Methods in Intelligent Systems	3			3	6.5	195	54	18		123
	total number of part II.1	**3**	**4**		**1**	**28.5**	**855**	**270**	**90**	**36**	**459**
II.2. Vocational and practical training (optional courses)											
1/св	Marketing		2			2	60	28	8		24
2/св	Risk-Management by Data Mining Methods		2d			3	90	36	18		36
3/св	Multi-agent Systems	1				4	120	36		18	66
4/св	Computer Information Systems in Economics and Finance	2				4	120	36		18	66
5/св	Software Support for Intelligent Networks		3			3.5	105	36		18	51
6/св	Modern Programming Technologies	2			2	5	150	36		18	96
7/св	Robotics	3				5	150	36		18	96
8/св	Advanced Systems Selforganization and Evolutive Economics		1d			3	90	36	18		36
	total number of part II.2	**4**	**4**		**1**	**29.5**	**885**	**280**	**44**	**90**	**471**
	TOTAL IN VOCATIONAL TRAINING	**7**	**8**		**2**	**58**	**1740**	**550**	**134**	**126**	**930**
	TOTAL	**9**	**16**		**3**	**120.0**	**3600**	**769**	**356**	**162**	**2313**

Approved by Faculty Academic Council, Meeting protocol № ____ from **April 25, 2017**

Head of the Department _____ O.L.Tymoschuk

Dean of the Faculty (Director of the Institute) _____ V.D.Romanenko