



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

Level Master

Form of study full-time
 (full-time, part-time)

Speciality Automation and Computer Integrated Technologies

Faculty of Chemical Technology

Michael Zgurovsky

Specialization Computer-Integrated Technologies of Sustainable
 Chemical Production Complexes

Qualification Master in Automation and Computer-
 Integrated Technologies

2017

Profile program Educational and Professional

Study duration 1 year 4 months

Graduation Department Department of Cybernetics of Chemical Technology Processes

Base level Bachelor degree

I. Schedule of educational process

YEAR	September				October				November				December				January				February				March				April				May				June				July				August											
I	P	P	P	P	P	P	P	P	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
II	P	P	P	P	P	P	P	P	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R				

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			10		8		18

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma	2	8

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Master Thesis	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			Self-study
								Lectures	Practical	Laboratory	
1	2	3	4	5	6	7	8	9	10	11	12
I. GENERAL TRAINING											
I.1. Basic training (major courses)											
1/I	Patent science and Intellectual Property		1			3	90	36	18		36
2/I	Modern Theory of Automatic Control 1. Applied Automatic Control Theory 2. Synthesis of Control Systems Software		2	1		8	240	36	36	36	132
total number of part I.1		1	2			11	330	72	54	36	168
I.2. Basic training (optional courses)											
3/I	Academic discipline of Sustainable Development Problems		2			2	60	18	18		24
4/I	Academic discipline of Management		2			3	90	18	36		36
5/I	Foreign Language for Specific Purposes		2			3	90		72		18
total number of part I.3		3				8	240	36	126		78
I.3. Science Research (optional courses)											
7/I	Scientific Research 1. Fundamentals of Scientific Research 2. Reserch		1, 2			4	120	9	36		75
8/I	Pre-diploma Practice		4			14	420				420
9/I	Master Thesis Implementation					16	480				480
total number of part I.3		3				34	1020	9	36		975
TOTAL IN GENERAL TRAINING		1	8			53	1590	117	216	36	1221
II. VOCATIONAL TRAINING											
II.1. Vocational and practical training (major courses)											
1/vm	System Analysis	1			1	8	240	36	36	36	132
2/vm	Modeling of Energy Saving and Ecological Systems	1				4	120	18	18	18	66
3/vm	Optimization of Complex Technological Systems 1. Optimization of Complex Technological Systems' Methods 2. Optimization of Complex Technological Systems' Applied Problems	2	1			9	270	54	36	45	135
4/vm	Sustainable Automated Production Complexes		2		2	4	120	36		18	66
total number of part II.1		3	2	0	2	25	750	144	90	117	399
II.2. Vocational and practical training (optional courses)											
1/vo	Academic discipline of Modeling Objects and Systems in Industry	1				4	120	27		27	66
2/vo	Academic discipline of Artificial Intelligence	2				5	150	36	18	18	78
3/vo	Academic discipline of Automation Systems' Standardization		2			3	90	18	27		45
total number of part II.2		2	1	0	0	12	360	81	45	45	189
TOTAL IN VOCATIONAL TRAINING		5	3	0	2	37	1110	225	135	162	588
TOTAL		6	11	0	2	90	2700	342	351	198	1809

Approved by Faculty Academic Council, Meeting protocol №4 from April 25, 2017

Head of the Department _____ / Dr. T. Bojko /

Dean of the Faculty _____ / Prof. I. Astrelin /