



APPROVED

by Rector of Igor Sikorsky Kyiv Polytechnic Institute

Michael Zgurovsky

2017

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

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

CURRICULUM

(Enrolment 2017)

Level Bachelor

Speciality 152 - Metrology and information-measuring technique

Specialization Information-measuring technologies of ecological monitoring

Graduation Department Scientific, analytical and environmental instruments and systems department

Form of study full-time

Faculty (Institute) FACULTY OF INSTRUMENTATION ENGINEERING

Qualification 3119 Specialist in information-measuring technologies

Study duration 3 years 10 months

Base level full secondary education

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																			E	E	H	H																																		
II																			E	E	H	H																																		
III																			E	E	H	H																																		
IV																			E	E	H	H																																		
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	36	4				12	52
III	36	5				11	52
IV	27	3	5	2	4	2	43

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma	4	5

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
	Graduation project	4

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. Natural-scientific training											
	Higher Mathematics	1,2,3				18	540	108	162		270
	Physics	1,2				10	300	72	36	36	156
	Chemistry		1Д			3	90	26		28	36
	Engineering and Computer Graphics		1Д			4	120	36	36		48
	Computer Engineering and Programmaing	1,2			2	13	390	72	126		192
total number of part I.1		7	2		1	48	1440	314	360	64	702
I.2. Basic training (major courses)											
	Economics and Production Engineering		7			4	120	36	36		48
	Labor Safety and Civil Defence		7			4	120	36	28	8*	48
	Fundamentals of Metrology and Information and Measurement Technology	3,4				11	330	90	72		168
	Special issues of higher mathematics.	4				4	120	18	36		66
	Devices of information and measuring equipment	6	4,5Д			15,5	465	90	54	72	249
	Methods and Means for Measuring	5,6				14,5	435	72	36	72	255
	Physical quantities transducers.	6		6		7	210	36		36	138
total number of part I.2		7	4	1		60	1800	378	262	180	972
I.3. Basic training (optional courses)											
	Ecology Subjects		4			2	60	18	18		24
	Pre-diploma Practice		8Д			7,5	225				225
	Diploma Project					6	180				180
total number of part I.3			2			15,5	465	18	18	0	429
I.4. Humanities training (optional courses)											
	History Subjects		1			2	60	18	18		24
	Ukrainian Language Subjects		2			2	60	18	18		24
	Philosophy Subjects		3			2	60	18	18		24
	Psychology Subjects		3			2	60	18	18		24
	Subjects on Law		6			2	60	18	18		24
	Subjects on Humanities and Social Sciences #1		6			2	60	18	18		24
	Subjects on Humanities and Social Sciences #2		7			2	60	18	18		24
	Foreign Language		2,4Д			6	180		144		36
	Foreign Language for Professional Purposes		6, 7Д			4	120		90		30
total number of part I.4			11			24	720	126	360	0	234
TOTAL IN GENERAL TRAINING		14	19	1	1	147,5	4425	836	1000	244	2337
II. VOCATIONAL TRAINING											
II.1. Vocational and practical training (major courses)											
	Materials Science		2			3	90	36		18	36
	Theoretical Mechanics		2Д			5	150	36	36		78
	Supplementary Course of Physics	3				5	150	36	36		78
	Ecological Instrumentation technology.		3Д			5	150	36	18	18	78
	Design and Engineering of Instrument Elements	4		4		5,5	165	36	18		111
	Automatic Control Theory	5				5	150	36	36		78
	Analog Circuitry	5				5	150	36		36	78
	Ecology of Sustainable Development		5Д			4	120	36	18		66
	Microprocessor Technology	7				5,5	165	36		36	93
	Theoretical foundations of information-measuring technologies	7				6	180	36	18	18	108
	Analytical Environmental Instruments	7,8		7		13,5	405	72	36	36	261
total numberof part II.1		8	4	2		62,5	1875	432	216	162	1065
II.2. Vocational and practical training (optional courses)											
	Introduction to the Speciality		1			3	90	18	36		36
	Internet Technologies.		3Д			3,5	105	18	36		51
	Information Technologies & Instrumentation										
	Physical bases of solar energy		4Д			3	90	18		36	36
	Solar Energy measurement control										
	Computer Graphics		4			3	90	18	36		36
	Office Computer Technologies										
	Fundamentals of Certification		5			3,5	105	36	18		51
	Qualimetry										
	Environmental safety and audit.		6Д			5,5	165	36	36	18	75
	Computer-Aided Design		8			5	150	18	36		96
	Fundamentals of Computer-Aided Design										
	Information and Measuring Technologies										
	Information-measuring technologies for ecological monitoring		8Д			3,5	105	36	18		51
total number of part II.2		1	7			30	900	198	216	54	432
TOTAL IN VOCATIONAL TRAINING		9	11	2	0	92,5	2775	630	432	216	1497
TOTAL		23	30	3	1	240,0	7200	1466	1432	460	3834

Approved by Faculty Academic Council, Meeting protocol № 4/17 from April 24, 2017

Head of the Department _____ / Poryev V. A. /

Dean of the Faculty _____ / Tymchyk G. S. /