



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"  
**CURRICULUM**  
Enrolment 2021

APPROVED  
by Scientific Council of  
"Igor Sikorsky Kyiv Polytechnic Institute"  
... 2021 y.  
protocol # \_\_\_\_\_  
Chairman of the Academic Council \_\_\_\_\_

Level Bachelor Field of Study 12 Information Technologies  
(name of educational degree) (code and name of the field of knowledge)  
Specialty 123 Computer Engineering  
(code and name of the specialty)  
Educational Professional Program 123 Computer Systems and Networks  
(name)  
Form of study full-time  
Graduation Department Computer Engineering

Faculty of Informatics and Computer Science  
Qualification Bachelor in Computer Engineering  
Term of study 3 years, 10 months (4 e.y.)  
Base level Full secondary education

I. Schedule of educational process

W	September	October	November	December	January	February	March	April	May	June	July	August
I	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks	18 weeks
II												
III												
IV												

Symbols: Learning period, Examination, Practice, Research, Assessment, Holiday

II. SUMMARY TABLE OF TIME BUDGET, weeks

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

III. PRACTICE

Type of practice	Semester	Weeks
Pre-diploma Practice	8	5

IV. GRADUATES ASSESSMENT

Subjects	Form of graduates assessment (exam, graduation project)	Semester
Diploma Project	Defense of Bachelor Thesis	8

V. Plan of Educational process

CODE from EP	Subjects	Distribution for terms (semesters)					Number of hours							Distribution of classroom hours per week by courses and semesters									
		Exams	Final tests	Individual tasks	Modular test work	ECTS Credits	Total	Classroom			Self-study	Semesters											
								Lectures	Practical	Laboratory		Number of weeks in semester											
												I year	II year	III year	IV year								
<b>1. NORMATIVE components of EP</b>																							
<b>1.1. General Training Cycle</b>																							
GM 1	History of Science and Technology	1				60	36	18	18		24	2											
GM 2	Culture of Speech and Business Speech	2				60	36	18	18		24	2											
GM 3	Fundamentals of a Healthy Lifestyle	2				90	72		72		18	2											
GM 4	Foreign Language	2, 4				180	144		144		36	2	2	2	2								
GM 5	Foreign Language for Professional Purposes	8	6			180	126		126		54			2	2								
GM 6	Economics and Organization of Production	7				120	72	36	36		48				4								
GM 7	Higher Mathematics	1,2,3		1,2,3	13,5	405	288	144	144		117	6	6	4									
GM 8	Analytic Geometry	1		1	1	90	54	36	18		36	3											
GM 9	Programming	1	2			11	330	162	108		54	168	6	3									
GM 10	Discrete Mathematics	2				5	150	54	36		18	96		3									
GM 11	Physics	2		2		6	180	108	36	36	36	72		6									
GM 12	Theory of Electrical Circuits and Signals	3		3		5	150	72	36	18	18	78		4									
GM 13	Probability Theory and Mathematical Statistics	4		3		5	150	54	36		18	96		3									
GM 14	Computer Electronics	4				5	150	54	36		18	96		3									
GM 15	Life Safety and Civil Protection	7				7	2	60	36	18	18	24			2								
GM 16	Introduction to Philosophy	3		3		3	2	60	36	18	18	24		2									
GM 17	Environmental Strategy	4		4		2	60	36	18	18	24			2									
GM 18	Law	5				5	2	60	36	18	18	24			2								
<b>Total of normative EP components of the general training cycle</b>		<b>9</b>	<b>14</b>	<b>6</b>	<b>17</b>	<b>84,5</b>	<b>2535</b>	<b>1476</b>	<b>612</b>	<b>702</b>	<b>162</b>	<b>1059</b>	<b>21</b>	<b>24</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>8</b>	<b>2</b>			
<b>1.2. Professional Training Cycle</b>																							
PM 1	Computer Logic	2	1			10	300	108	72		36	192	3	3									
PM 2	Data Structures and Algorithms	1				5	150	54	36		18	96											
PM 3	Introduction to Operating System Linux	3				5	150	54	36		18	96		3									
PM 4	Database Organization	3				4	120	54	36		18	96			3								
PM 5	Software Engineering	3				5	150	72	54		18	78		4		3							
PM 6	Computer Architecture	4,5,6				15	450	162	108		54	288			3	3	3						
PM 7	System Programming	4				5	150	54	36		18	96			3								
PM 8	Parallel Programming	5	5			5	150	54	36		18	96			3								
PM 9	System Software	6				5,5	165	54	36		18	111				3							
PM 10	Computer Networks	6				5	150	54	36		18	96				3							
PM 11	Computer Systems	7				5,5	165	72	54		18	93					4						
PM 12	Protection of Information in Computer Systems and Networks	8				4,5	135	54	36		18	81							6				
PM 13	Algorithms and Methods of Computation	4				4	120	54	36		18	66		3									
PM 14	Course work on Computer Logic					1	30					30	x										
PM 15	Course work on Software Engineering					1	30					30			x								
PM 16	Course work on System Programming					1	30					30				x							
PM 17	Course work on Computer Architecture					1	30					30					x						
PM 18	Course work on System Software					1	30					30							x				
PM 19	Pre-diploma Practice		8			6	180					180											
PM 20	Diploma Design					6	180					180											
<b>Total of normative EP components of the professional training cycle</b>		<b>10</b>	<b>7</b>	<b>1</b>		<b>95,5</b>	<b>2865</b>	<b>900</b>	<b>612</b>	<b>288</b>	<b>1965</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>12</b>	<b>6,0</b>	<b>9,0</b>	<b>4</b>	<b>6</b>				
<b>SUMMARY of NORMATIVE components of EP</b>		<b>19</b>	<b>21</b>	<b>7</b>	<b>17</b>	<b>180</b>	<b>5400</b>	<b>2376</b>	<b>1224</b>	<b>702</b>	<b>450</b>	<b>3024</b>	<b>27</b>	<b>27</b>	<b>22</b>	<b>19</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>8</b>			
<b>2. SELECTIVE components of EP</b>																							
<b>2.1. General training cycle (Selective Educational components from the General University-Catalog)</b>																							
GS 1	Educational component 1 University-Catalog	3				3	2	60	36	18	18	24		2									
GS 2	Educational component 2 University-Catalog	4				4	2	60	36	18	18	24			2								
<b>Total of selective EP components of the general training cycle</b>		<b>2</b>	<b>2</b>	<b>4</b>	<b>120</b>	<b>72</b>	<b>36</b>	<b>36</b>	<b>48</b>					<b>2</b>	<b>2</b>								
<b>2.2. Professional training cycle (Selective Educational components from the Faculty-Catalog)</b>																							
PS 1	Educational component 1 Faculty-Catalog	5				4	120	54	36		18	66				3							
PS 2	Educational component 2 Faculty-Catalog	5				4	120	54	36		18	66				3							
PS 3	Educational component 3 Faculty-Catalog	5				4	120	54	36		18	66				3							
PS 4	Educational component 4 Faculty-Catalog	5				4	120	54	36		18	66				3							
PS 5	Educational component 5 Faculty-Catalog	6				4	120	54	36		18	66					3						
PS 6	Educational component 6 Faculty-Catalog	6				4	120	54	36		18	66					3						
PS 7	Educational component 7 Faculty-Catalog	6				4	120	54	36		18	66					3						
PS 8	Educational component 8 Faculty-Catalog	7				4	120	54	36		18	66						3					
PS 9	Educational component 9 Faculty-Catalog	7				4	120	54	36		18	66						3					
PS 10	Educational component 10 Faculty-Catalog	7				4	120	54	36		18	66						3					
PS 11	Educational component 11 Faculty-Catalog	7				4	120	54	36		18	66						3					
PS 12	Educational component 12 Faculty-Catalog	8				4	120	54	36		18	66							6				
PS 13	Educational component 13 Faculty-Catalog	8				4	120	54	36		18	66							6				
PS 14	Educational component 14 Faculty-Catalog	8				4	120	54	36		18	66							6				
<b>Total of selective EP components of the professional training cycle</b>		<b>14</b>				<b>56</b>	<b>1680</b>	<b>756</b>	<b>504</b>	<b>252</b>	<b>924</b>					<b>12</b>	<b>9</b>	<b>12</b>	<b>18</b>				
<b>SUMMARY of SELECTIVE components of EP</b>		<b>16</b>	<b>2</b>	<b>60</b>	<b>1800</b>	<b>828</b>	<b>540</b>	<b>36</b>	<b>252</b>	<b>972</b>				<b>2</b>	<b>2</b>	<b>12</b>	<b>9</b>	<b>12</b>	<b>18</b>				
<b>TOTAL</b>		<b>19</b>	<b>37</b>	<b>7</b>	<b>19</b>	<b>240</b>	<b>7200</b>	<b>3204</b>	<b>1764</b>	<b>702</b>	<b>3996</b>	<b>27</b>	<b>27</b>	<b>24</b>	<b>21</b>	<b>22</b>	<b>20</b>	<b>24</b>	<b>26</b>				
												Number of exams				3	3	3	3	1	3	1	2
												Number of Final Tests				3	5	4	5	6	4	6	4
												Including: Number of Course Projects											
												Number of Course Works				1		1	1	1	1		

60921

Chairman of the EMC \_\_\_\_\_ / Sergii STIRENKO /

Chairman of the Department \_\_\_\_\_ / Sergii STIRENKO /

Dean of the Faculty \_\_\_\_\_ / Sergii TELENYK /