



National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"  
**CURRICULUM**  
 (educational component of the training program)  
 2019/ 2020 year  
 (Enrolment 2019)

APPROVED  
 First Vice-Rector  
 Igor Sikorsky Kyiv Polytechnic Institute

Level PhD Field of study 16 Chemical and bioengineering Faculty \_\_\_\_\_  
 Speciality 162 - Biotechnologies and bioengineering Form of study part-time  
 Educational and Scientific program Biotechnologies  
 Chair of studying Environmental biotechnology and bioenergy Educational component 30 ECTS Credits  
 Base level Master degree

Yu. Ya. Yakymenko  
 " 21 " 06 2019 p.

**I. Educational component**

№	Educational components	Name of the Chair	Total amount		Number of hours							Distribution for terms (semesters)							Distribution of hours for years and terms (semesters)							
			ECTS Credits	Hours	Total	Lectures/practical lessons			Self-study	Exams	Final tests	Module tests	Course projects	Courseworks	CGW,CW,GW	Home tests	Abstracts	2 year		3 semester		4 semester				
						Lectures	Practical	Laboratory										including		including		including		including		
																		Total	Lectures	Practical	Laboratory	Total	Lectures	Practical	Laboratory	Total
<b>1. Normative educational components</b>																										
<i>Educational disciplines for mastering general scientific (philosophical) competencies</i>																										
1	Philosophy -1. Communicative ethics	Philosophy	1,5	45	4	4				41	1	1					4	4								
2	Philosophy -2. Social philosophy	Philosophy	2,5	75	10	4	6			65	2												10	4	6	
<b>Total</b>			<b>4</b>	<b>120</b>	<b>14</b>	<b>8</b>	<b>6</b>			<b>106</b>	<b>1</b>	<b>1</b>	<b>1</b>				<b>4</b>	<b>4</b>				<b>10</b>	<b>4</b>	<b>6</b>		
<i>Educational disciplines for acquisition language competencies</i>																										
3	Foreign language for scientific activity -1. Foreign language for scientific researches (English)	English for Engineering №1	3	90	8		8			82	1						1	8	8							
4	Foreign language for scientific activity -1. Foreign language for scientific communication (English)	English for Engineering №1	3	90	6		6			84	2	2										6		6		
<b>Total</b>			<b>6</b>	<b>180</b>	<b>14</b>		<b>14</b>			<b>166</b>	<b>1</b>	<b>1</b>	<b>1</b>				<b>1</b>	<b>8</b>	<b>8</b>			<b>6</b>	<b>4</b>	<b>6</b>		
<i>Educational disciplines for acquisition in-depth knowledge of the specialty</i>																										
<b>Total</b>																										
<i>Educational disciplines for the acquisition of universal competencies of the researcher</i>																										
5	Academic discipline for the acquisition of language competencies sufficient to present and discuss the results of scientific work in English orally and in writing	Environmental Biotechnology and Bioenergy	2	60	6	4	2			54	2											6	4	2		
<b>Total</b>			<b>2</b>	<b>60</b>	<b>6</b>	<b>4</b>	<b>2</b>			<b>54</b>	<b>1</b>											<b>6</b>	<b>4</b>	<b>2</b>		
<b>TOTAL of NORMATIVE educational components</b>			<b>12</b>	<b>360</b>	<b>34</b>	<b>12</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>22</b>	<b>8</b>	<b>14</b>	<b>0</b>	
<b>2. Elective educational components</b>																										
<b>Total</b>																										
<b>Number of</b>																										
Exams																										
Final tests																										
Module tests																										
Individual tasks																										
Course projects																										
Course works																										
CGW,CW, GW																										
Home tests																										
Abstracts																										

**Internships\*\***

№	Type of Internship	Term of carrying out	Duration, weeks	semester
1				

\* Number of students who chose the discipline

Head of SMB \_\_\_\_\_ / Natalia GOLUB /  
 Guarantor of ESP \_\_\_\_\_ / Natalia GOLUB /