



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

(Enrolment 2021)

APPROVED

by Academic Council

Igor Sikorsky Kyiv Polytechnic Institute
(meeting protocol № ___ from _____ 2021)

Head of Academic Council

Mvkhavlo ILCHENKO

Level Master

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

Speciality 162 - Biotechnology and bioengineering

Faculty (Institute) Biotechnology and biotechnics

Educational and Professional program Biotechnologies

Qualification Master of Biotechnology and bioengineering

(Title of the program)

Study duration 1 year 4 months

Graduation Department Industrial Biotechnologov
Biorenergetics, Bioinformatics and Ecobiotechnologov

Base level Bachelor degree

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																																																																																																
II	P	P	P	P	P	P	P		R	R	R	R	R	R	R	R	R	A		E	E	H	H																																																																									

Symbols: Learning period Examination Practice Research Assessment Holiday

II. Summary table of time budget (Weeks)

YEAR	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4				12	52
II			8		10		18

III. Practice

Type of practice	YEAR	Weeks
Practice	2	8

IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Work on master's dissertation	Defence of master's dissertation	2

V. Plan of Educational process

Code	educational components	Distribution for terms (semesters)				ECTS Credits	Number of hours				
		Exams	Final tests	Individual task	Module test		Total	Lectures/practical lessons			Self-study
								Lectures	Practical	Laboratory	
1	2	3	4	5	6	7	8	9	10	11	12
1. NORMATIVE educational components											
1.1. General training cycle											
301	Intellectual Property and Patenting		2		2	3	90	36	18		36
302	Fundamentals of engineering and technology for sustainable development		2		2	2	60	18	18		24
303	Practical course of foreign language business communication		2	1	1	3	90		72		18
304	Development of startup-projects		1		1	3	90	18	36		36
1.2. Vocational training cycle											
Π01	System analysis of biotechnological objects	1			1	5	150	18	18		114
Π02	Problematic issues of modern biotechnology	1		1	1	5	150	18	18		114
Π03	Biological and Chemical Sensor Systems	1		1	1	5	150	18	18		114
Π04	Biochemical and physical methods of analysis in biotechnology		1	1	1	4	120	18	18		84
Π05	Applied bioinformatics		1	1	1	4	120	18	18		84
Π06	Coursework on system analysis of biotechnological objects		1			1	30				30
Π07	Scientific work on the topic of master's dissertation		1,2			6	180	9	36		135
Π08	Practice		3			14	420				420
Π09	Work on master's dissertation					12	360				360
TOTAL of NORMATIVE educational components		3	10	5	9	67	2010	171	270		1569
2. ELECTIVE educational components											
2.1. Vocational training cycle (Optional subjects from Faculty catalogue)											
ΠB1	Educational components 1 from F-catalogue		2		2	4	120	18		18	84
ΠB2	Educational components 2 from F-catalogue		2		2	4	120	18		18	84
ΠB3	Educational components 3 from F-catalogue	2			2	5	150	18		18	114
ΠB4	Educational components 4 from F-catalogue	2		2	2	5	150	18	18		114
ΠB5	Educational components 5 from F-catalogue	2			2	5	150	18	18		114
TOTAL of ELECTIVE educational components		3	2	1	5	23	690	90	36	54	510
TOTAL		6	12	6	14	90	2700	261	306	54	2079

Approved by University Academic Council, Meeting protocol № ___ from _____ 2021

Head of the Department _____ / Tetiana TODOSICHUK /

Head of the Department _____ / Natalia GOLUB /

Dean of the Faculty _____ / Olexy DUGAN /