

**University of Life Sciences "King Mihai I" from Timișoara**  
**Faculty of Bioengineering of Animal Resources**  
 Undergraduate studies: **Bachelor's Degree**  
 Field of study: **Biotechnology**  
 Study programme: **Biotechnology (full English)**  
 Type of education and attendance: **in person, Full-Time**  
 Duration of the study programme: **4 years/8 semesters**

**Approved by the RECTOR,**  
 Prof. Eng. Cosmin Alin POPESCU, PhD.

Date: .....

**CURRICULUM**  
**for the 1st year of study, academic year 2024/2025**

No.	SUBJECT	Subject Code	Semester 1 (14 weeks)									Semester 2 (14 weeks)									Total /year					
			L	S	Lab	P	Total Teaching Hours (T.T.H.)	Cv. Hours	I.S. Hours	ECTS credits	E.F.	C	S	L	P	Total Teaching Hours (T.T.H.)	Hours Cv.	I.S. Hours	ECTS credits	E.F.	Cv. Hours	ECTS credits	I.S. Hours			
<b>COMPULSORY subjects:</b>																										
1	Anatomy and embryology	BE.01.F.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69		
2	Biochemistry	BE.02.F.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69		
3	Analytical chemistry and instrumental analysis	BE.03.D.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69		
4	Mathematics and statistics	BE.04.F.1	1	1	-	-	28	42	22	2	E	-	-	-	-	-	-	-	-	-	-	42	2	22		
5	Chemistry	BE.05.F.1	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	56	4	58		
6	General microbiology	BE.06.F.1	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	84	5	69		
7	Informatics	BE.07.F.1	0	2	-	-	28	28	22	2	E	-	-	-	-	-	-	-	-	-	-	28	2	22		
8	General biotechnologies	BE.08.D.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	69	5	E	84	5	69		
9	Botany	BE.09.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	E	84	4	44		
10	Biophysics	BE.10.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	C	84	4	44		
11	Cell biology	BE.11.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	69	5	E	84	5	69		
12	Ecology and environmental protection	BE.12.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	E	84	4	44		
13	Physiology 1	BE.13.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	69	5	E	84	5	69		
14	Practical training	BE.14.D.2	-	-	-	-	-	-	-	-	-	-	-	2.14	-	-	60	60	15	3	C	60	3	15		
-	<b>ELECTIVE subjects</b>	-	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	28	2	22		
<b>TOTAL</b>			10	5	10	0	350	490	400	30	6E+2C	12	0	12	0	396	564	354	30	5E+2C	1054	60	754			
			<b>25</b>									<b>24</b>										37.64				
<b>EVECTIVE subjects (choose 1 out of 2):</b>																										
15	Foreign language 1 (Romanian)	BE.15.C.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	28	2	22		
16	Foreign language 2 (French)	BE.16.C.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	28	2	22		
<b>FACULTATIVE (OPTIONAL) subjects:</b>																										
1	Physical education 1	BE.01.C.1	0	1	-	-	14	14	-	1	C	-	-	-	-	-	-	-	-	-	-	14	1	0		
2	Physical education 2	BE.02.C.2	-	-	-	-	-	-	-	-	-	0	1	-	-	14	14	-	2	C	14	2	0			
Legend: L - no. of lectures hours per week; S - no. of seminar hours per week; Lab - no. of practical work/laboratory hours per week; P - no. of project hours per week; Cv. hours - Conventional hours; CR - ECTS credits; I.S. Hours - Individual Study hours; E.F. - evaluation form: E - exam; C - colloquium; P - Project; Code: BE - Biotechnology (in English) / Subject order/ Formative category of the Subject: F - Fundamental; C - Complementary; D - Field-related; S - specialty / semester: 1 to 8.			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester	I.S. Hours / semester			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester	I.S. Hours / semester										
			750	0.816	14	25	350		400		750	0.628	14	24	336		354									

**Approved by the DEAN,**  
 Prof. Dipl.Eng. Ioan PET, PhD.  
 Date: June 28, 2024

University of Life Sciences "King Mihai I" from Timișoara  
**Faculty of Bioengineering of Animal Resources**  
 Undergraduate studies: **Bachelor's Degree**  
 Field: **Biotechnology**  
 Study programme: **Biotechnology (full English)**  
 Type of education and attendance: **in person, Full-Time**  
 Duration of the study programme: **4 years/8 semesters**

**Approved by the RECTOR,**  
 Prof. Eng. Cosmin Alin POPESCU, PhD.

Date: .....

**CURRICULUM**  
**for the 2nd year of study, academic year 2024/2025**

No.	SUBJECT	Subject Code	Semester 3 (14 weeks)									Semester 4 (14 weeks)									Total /year						
			L	S	Lab	P	Total Teaching Hours (T.T.H.)	Cv. Hours	I.S. Hours	ECTS credits	E.F.	C	S	L	P	Total Teaching Hours (T.T.H.)	Hours Cv.	I.S. Hours	ECTS credits	E.F.	Cv. Hours	ECTS credits	I.S. Hours				
<b>COMPULSORY subjects:</b>																											
1	Genetics	BE.01.F.3	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
2	Cell and tissue cultures 1	BE.02.D.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
3	Applied microbiology	BE.03.S.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
4	Experimental techniques	BE.04.D.3	1	-	2	-	42	56	33	3	C	-	-	-	-	-	-	-	-	-	-	-	-	56	3	33	
5	Physiology 2	BE.05.F.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
6	Bioethics and biosecurity in biotechnologies	BE.06.D.3	2	1	-	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
7	Communication	BE.07.C.4	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	28	42	48	3	E	42	3	48		
8	Quantitative genetics	BE.08.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	48	4	E	84	4	48		
9	Molecular biology	BE.09.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	48	4	E	84	4	48		
10	Cell and tissue cultures 2	BE.10.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	48	4	E	84	4	48		
11	General enzymology	BE.11.F.4	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	42	56	40	4	C	56	4	40		
12	Agricultural technologies	BE.12.S.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	48	4	E	84	4	48		
13	Reproduction biotechnologies	BE.13.S.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	40	4	C	84	4	40		
14	Practical training	BE.14.D.4	-	-	-	-	-	-	-	-	-	-	-	2.14	-	-	-	60	60	20	3	C	60	3	20		
-	<b>ELECTIVE subjects</b>		2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
<b>TOTAL</b>			12	1	11	0	336	476	414	30	4E+3C	12	1	12	0	410	578	340	30	5E+3C	1054	60	754	37.64			
<b>EVECTIVE subjects (1 of 2):</b>																											
15	Cellular pathology	BE.14.S.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
16	Animal pathology	BE.16.S.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
Legend: L - no. of lectures hours per week; S - no. of seminar hours per week; Lab - no. of practical work/laboratory hours per week; P - no. of project hours per week; Cv. hours - Conventional hours; CR - ECTS credits; I.S. Hours - Individual Study hours; E.F. - evaluation form: E - exam; C - colloquium; P - Project; Code: BE - Biotechnology (in English) / Subject order/ Formative category of the Subject: F - Fundamental; C - Complementary; D - Field-related; S - specialty / semester: 1 to 8.			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester	I.S. Hours / semester			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester	I.S. Hours / semester											
			750	0.870	14	24	336		414		750	0.588	14	25	350		340										

**Approved by the DEAN,**  
 Prof. Dipl.Eng. Ioan PETI, PhD.  
 Date: June 28, 2024

University of Life Sciences "King Mihai I" from Timișoara  
**Faculty of Bioengineering of Animal Resources**  
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 Field: **Biotechnology**  
 Study programme: **Biotechnology (full English)**  
 Type of education and attendance: **in person, Full-Time**  
 Duration of the study programme: **4 years/8 semesters**

**Approved by the RECTOR,**  
 Prof. Eng. Cosmin Alin POPESCU, PhD.

Date: .....

**CURRICULUM**  
**for the 3rd year of study, academic year 2024/2025**

No.	SUBJECT	Subject Code	Semester 5 (14 weeks)									Semester 6 (14 weeks)									Total /year				
			L	S	Lab	P	Total Teaching Hours (T.T.H.)	Cv. Hours	I.S. Hours	ECTS credits	E.F.	C	S	L	P	Total Teaching Hours (T.T.H.)	Hours Cv.	I.S. Hours	ECTS credits	E.F.	Cv. Hours	ECTS credits	I.S. Hours		
<b>COMPULSORY subjects:</b>																									
1	Genetically modified organisms	BE.01.D.5	2	-	2	-	56	84	94	6	C	-	-	-	-	-	-	-	-	-	-	-	84	6	94
2	Immunology	BE.02.S.5	2	-	1	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	-	56	4	58
3	Laboratory diagnosis	BE.03.S.5	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	-	56	4	58
4	Molecular markers	BE.04.D.5	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	84	5	69
5	Biotechnologies in apiculture and sericulture	BE.05.S.5	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	84	5	69
6	Biotechnologies in aquaculture	BE.06.S.6	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	E	84	4	44	
7	Biotechnological equipment	BE.07.D.6	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44		
8	Virology	BE.08.S.6	-	-	-	-	-	-	-	-	-	2	-	1	-	42	56	58	4	E	56	4	58		
9	Special Enzymology	BE.09.D.6	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	C	84	4	44		
10	Practical Training	BE.10.S.6	-	-	-	-	-	-	-	-	-	-	-	4.28	-	120	120	5	5	C	120	5	5		
-	<b>ELECTIVE subjects I</b>	-	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
-	<b>ELECTIVE subjects II</b>	-	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	66	6	E	126	6	66		
-	<b>ELECTIVE subjects III</b>	-	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33		
<b>TOTAL</b>			13	0	11	0	336	490	414	30	4E+2C	13	1	10	0	456	610	294	30	5E+2C	1100 39.286	60	708		
<b>ELECTIVE subjects I (1 of 2):</b>																									
11	Ecological technologies for monogastric animal husbandry	BE.11.S.5	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
12	Technologies for animal husbandry 1	BE.12.S.5	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
<b>ELECTIVE subjects II (1 of 2):</b>																									
13	Ecological technologies for polygastric animal husbandry	BE.13.S.6	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	66	6	E	126	6	66		
14	Technologies for animal husbandry 2	BE.14.S.6	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	66	6	E	126	6	66		
<b>ELECTIVE subjects III (1 of 2):</b>																									
15	Entrepreneurship in biotechnology	BE.15.C.6	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33		
16	Ethics and academic integrity	BE.16.C.6	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33		
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			750	0.845	14	24	336	414			750	0.482	14	24	336	294									

**Approved by the DEAN,**  
 Prof. Dipl.Eng. Ioan PET, PhD.  
 Date: June 28, 2024

University of Life Sciences "King Mihai I" from Timișoara

**Faculty of Bioengineering of Animal Resources**

Undergraduate studies: **Bachelor's Degree**

Field: **Biotechnology**

Study programme: **Biotechnology (full English)**

Type of education and attendance: **in person, Full-Time**

Duration of the study programme: **4 years/8 semesters**

**Approved by the RECTOR,**

Prof. Eng. Cosmin Alin POPESCU, PhD.

Date: .....

**CURRICULUM  
for the 4<sup>th</sup> year of study, academic year 2024/2025**

No.	SUBJECT	Subject Code	Semester 7 (14 weeks)									Semester 8 (14 weeks)									Total /year						
			L	S	Lab	P	Total Teaching Hours (T.T.H.)	Cv. Hours	I.S. Hours	ECTS credits	E.F.	C	S	L	P	Total Teaching Hours (T.T.H.)	Hours Cv.	I.S. Hours	ECTS credits	E.F.	Cv. Hours	ECTS credits	I.S. Hours				
<b>COMPULSORY disciplines:</b>																											
1	Technology of Biosynthesis Products	BE.01.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	84	5	69		
2	Genetic Engineering 1	BE.02.D.7	2	-	2	-	56	84	94	6	E	-	-	-	-	-	-	-	-	-	-	-	84	6	94		
3	Management and marketing of biotechnological products	BE.03.D.7	2	2	-	-	56	84	44	4	C	-	-	-	-	-	-	-	-	-	-	-	84	4	44		
4	Biotechnologies in animal nutrition	BE.04.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	84	5	69		
5	Biotechnologies for the production of vaccines, serums and diagnostic biopreparations	BE.05.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	84	5	69		
6	Biotechnological therapeutic products	BE.06.S.7	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	-	84	5	69		
7	Environmental protection biotechnologies	BE.07.S.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	-	-	84	5	69		
8	Genetic engineering 2	BE.08.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	94	6	E	-	-	84	6	94		
9	Toxicology	BE.09.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	-	-	84	4	44		
10	Biotechnologies for waste recovery	BE.10.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	-	-	84	4	44		
11	Quality management	BE.11.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	C	-	-	84	4	44		
12	Biotechnological processing of raw plant materials and animal products	BE.12.S.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	-	-	84	4	44		
13	Practical training (DIPLOMA project preparation)	BE.13.S.8	-	-	-	-	-	-	-	-	-	-	-	2.14	-	60	60	15	3	C	-	-	60	3	15		
<b>TOTAL</b>			12	2	10	0	336	504	414	30	4E+2C	12	0	12	0	396	564	354	30	5E+2C	-	-	1068	60	768		
			<b>24</b>									<b>24</b>															
-	<b>DIPLOMA EXAM</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	E	-	-	-	10	-		
<b>FACULTATIVE (OPTIONAL) subjects:</b>																											
1	Driving motor vehicles 1 (optional)	BE.01.C.7	1	-	2	-	42	56	-	2	C	-	-	-	-	-	-	-	-	-	-	-	56	2	0		
2	Driving motor vehicles 2 (optional)	BE.02.C.8	-	-	-	-	-	-	-	-	-	1	-	2	-	42	56	-	2	C	-	-	56	2	0		
Legend: L - no. of lectures hours per week; S - no. of seminar hours per week; Lab - no. of practical work/laboratory hours per week; P - no. of project hours per week; Cv. hours - Conventional hours; CR - ECTS credits; I.S. Hours - Individual Study hours; E.F. - evaluation form: E - exam; C - colloquium; P - Project; Code: BE - Biotechnology (in English) / Subject order/ Formative category of the Subject: F - Fundamental; C - Complementary; D - Field-related; S - speciality / semester: 1 to 8.			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester		I.S. Hours / semester			Total activity hours / semester:	I.S. Hours / Cv. Hours	No. of weeks / semester	Teaching hours / week	Teaching hours / semester		I.S. Hours / semester									
			750	0.821	14	24	336		414			750	0.628	14	24	336		354									

**Approved by the DEAN,**

Prof. Dipl.Eng. Ioan PEȚ, PhD.

Date: June 28, 2024