

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 Romanian)**
 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						
COMPULSORY subjects:																													
1	Anatomy and embryology	BT.01.F.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
2	Biochemistry	BT.02.F.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
3	Analytical chemistry and instrumental analysis	BT.03.D.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
4	Mathematics and statistics	BT.04.F.1	1	1	-	-	28	42	22	2	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	2	22	
5	Chemistry	BT.05.F.1	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58	
6	General microbiology	BT.06.F.1	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
7	Informatics	BT.07.F.1	0	2	-	-	28	28	22	2	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22	
8	General biotechnologies	BT.08.D.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
9	Botany	BT.09.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	4	44	
10	Biophysics	BT.10.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	4	44	
11	Cell biology	BT.11.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
12	Ecology and environmental protection	BT.12.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	4	44	
13	Physiology 1	BT.13.F.2	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	84	5	69	
14	Practical training	BT.14.D.2	-	-	-	-	-	-	-	-	-	-	-	2.14	-	-	-	-	-	-	-	-	-	-	-	60	3	15	
-	ELECTIVE subjects	-	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22	
TOTAL			10	5	10	0	350	490	400	30	6E+2C	12	0	12	0	396	564	354	30	5E+2C	1054	60	754	37.64					
EVECTIVE subjects (choose 1 out of 2):																													
15	Foreign language 1 (English)	BT.15.C.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22	
16	Foreign language 2 (French)	BT.16.C.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22	
FACULTATIVE (OPTIONAL) subjects:																													
1	Physical education 1	BT.01.C.1	0	1	-	-	14	14	-	1	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	1	0	
2	Educational psychology	DPPD.02.C.1	2	2	-	-	56	84	-	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	0	
3	Physical education 2	BT.03.C.2	-	-	-	-	-	-	-	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	14	2	0	
4	Pedagogy I (Fundamentals of Pedagogy. Theory and Methodology of the Curriculum)	DPPD.04.C.2	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	84	5	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 PEȚ, PhD.
 Data:28.06.2024□

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 Romanian)**
 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 2d year of study, academic year 2024/2025

No.	SUBJECT	Subject Code	Semester 2 (14 weeks)									Semester 3 (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	
COMPULSORY subjects:																								
1	Genetics	BT.01.F.3	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	56	4	58
2	Cell and tissue cultures 1	BT.02.D.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
3	Applied microbiology	BT.03.S.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
4	Experimental techniques	BT.04.D.3	1	-	2	-	42	56	33	3	C	-	-	-	-	-	-	-	-	-	-	56	3	33
5	Physiology 2	BT.05.F.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
6	Bioethics and biosecurity in biotechnologies	BT.06.D.3	2	1	-	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58
7	Communication	BT.07.C.4	-	-	-	-	-	-	-	-	-	1	1	-	-	28	42	48	3	E	-	42	3	48
8	Quantitative genetics	BT.08.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	48	4	E	-	84	4	48
9	Molecular biology	BT.09.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	48	4	E	-	84	4	48
10	Cell and tissue cultures 2	BT.10.D.4	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	48	4	E	-	84	4	48
11	General enzymology	BT.11.F.4	-	-	-	-	-	-	-	-	-	1	-	2	-	42	56	40	4	C	-	56	4	40
12	Agricultural technologies	BT.12.S.4	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	48	4	E	-	84	4	48
13	Reproduction biotechnologies	BT.13.S.4	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	40	4	C	-	84	4	40
14	Practical training	BT.14.D.4	-	-	-	-	-	-	-	-	-	-	-	2.14	-	60	60	20	3	C	-	60	3	20
-	ELECTIVE subjects		2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58
TOTAL			12	1	11	0	336	476	414	30	4E+3C	12	1	12	0	410	578	340	30	5E+3C	1054	60	754	
			24									25										37.64		
ELECTIVE subjects (choose 1 out of 2):																								
15	Cellular pathology	BT.15.S.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58
16	Animal pathology	BT.16.S.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58
FACULTATIVE (OPTIONAL) subjects:																								
1	Ethology	BT.01.D.3	1	-	2	-	42	56	-	3	C	-	-	-	-	-	-	-	-	-	-	56	3	0
2	Pedagogy II (Theory and methodology of instruction. Theory and methodology of assessment)	DPPD.02.C.3	2	2	-	-	56	84	-	5	E	-	-	-	-	-	-	-	-	-	-	84	5	0
3	Didactics of the Specialization	DPPD.03.C.4	-	-	-	-	-	-	-	-	-	2	2	-	-	56	84	-	5	E	-	84	5	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	0.870	14	24	336	414			750	0.588	14	25	350	340								

Approved by the DEAN,
 Prof. Dipl.Eng. Ioan PETȚ, PhD.
 Data:28.06.2024□

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 Romanian)**
 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		
COMPULSORY subjects:																									
1	Genetically modified organisms	BT.01.D.5	2	-	2	-	56	84	94	6	C	-	-	-	-	-	-	-	-	-	-	84	6	94	
2	Immunology	BT.02.S.5	2	-	1	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	56	4	58	
3	Laboratory diagnosis	BT.03.S.5	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58	
4	Molecular markers	BT.04.D.5	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69	
5	Biotechnologies in apiculture and sericulture	BT.05.S.5	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69	
6	Biotechnologies in aquaculture	BT.06.S.6	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	E	84	4	44	
7	Biotechnological equipment	BT.07.D.6	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	E	84	4	44	
8	Virology	BT.08.S.6	-	-	-	-	-	-	-	-	-	2	-	1	-	-	42	56	58	4	E	56	4	58	
9	Special Enzymology	BT.09.D.6	-	-	-	-	-	-	-	-	-	2	-	2	-	-	56	84	44	4	C	84	4	44	
10	Practical Training	BT.10.S.6	-	-	-	-	-	-	-	-	-	-	-	4.28	-	-	120	120	5	5	C	120	5	5	
-	ELECTIVE subjects I	-	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
-	ELECTIVE subjects II	-	-	-	-	-	-	-	-	-	-	3	-	3	-	-	84	126	66	6	E	126	6	66	
-	ELECTIVE subjects III	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	42	56	33	3	E	56	3	33	
TOTAL			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		
ELECTIVE subjects I (choose 1 out of 2):																									
11	Ecological technologies for monogastric animal husbandry	BT.11.S.5	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
12	Technologies for animal husbandry 1	BT.12.S.5	3	-	3	-	84	126	66	6	E	-	-	-	-	-	-	-	-	-	-	126	6	66	
ELECTIVE subjects II (choose 1 out of 2):																									
13	Ecological technologies for polygastric animal husbandry	BT.13.S.6	-	-	-	-	-	-	-	-	-	3	-	3	-	-	84	126	66	6	E	126	6	66	
14	Technologies for animal husbandry 2	BT.14.S.6	-	-	-	-	-	-	-	-	-	3	-	3	-	-	84	126	66	6	E	126	6	66	
ELECTIVE subjects III (choose 1 out of 2):																									
15	Entrepreneurship in biotechnology	BT.15.C.6	-	-	-	-	-	-	-	-	-	2	1	-	-	-	42	56	33	3	E	56	3	33	
16	Ethics and academic integrity	BT.16.C.6	-	-	-	-	-	-	-	-	-	2	1	-	-	-	42	56	33	3	E	56	3	33	
FACULTATIVE (OPTIONAL) subjects:																									
1	Bioinformatics	BT.01.C.5	1	-	2	-	42	56	-	3	C	-	-	-	-	-	-	-	-	-	-	56	3	0	
2	Equitation	BT.02.S.6	-	-	-	-	-	-	-	-	-	1	-	2	-	-	42	56	-	3	C	56	3	0	
3	Computer-Assisted Instruction	DPPD.03.C.5	1	1	-	-	28	42	-	2	C	-	-	-	-	-	-	-	-	-	-	42	2	0	
4	Pedagogical Practice in Compulsory Pre-University Education I	DPPD.04.C.5	0	3	-	-	42	42	-	3	C	-	-	-	-	-	-	-	-	-	-	42	3	0	
5	Classroom Management	DPPD.05.C.6	-	-	-	-	-	-	-	-	-	1	1	-	-	-	28	42	-	3	E	42	3	0	
6	Pedagogical Practice in Compulsory Pre-University Education II	DPPD.06.C.6	-	-	-	-	-	-	-	-	-	0	3	-	-	-	36	36	-	2	C	36	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	0.845	14	24	336		414		750	0.482	14	24	336		294								

Approved by the DEAN,
 Prof. Dipl.Eng. Ioan PET, PhD.
 Data:28.06.2024□

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 Romanian)**

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 4th 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	
COMPULSORY subjects:																								
1	Technology of biosynthesis products	BT.01.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
2	Genetic engineering 1	BT.02.D.7	2	-	2	-	56	84	94	6	E	-	-	-	-	-	-	-	-	-	-	84	6	94
3	Management and marketing of biotechnological products	BT.03.D.7	2	2	-	-	56	84	44	4	C	-	-	-	-	-	-	-	-	-	-	84	4	44
4	Biotechnologies in animal nutrition	BT.04.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
5	Biotechnologies for the production of vaccines, serums and diagnostic biopreparations	BT.05.S.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69
6	Biotechnological therapeutic products	BT.06.S.7	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	84	5	69
7	Environmental protection biotechnologies	BT.07.S.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	84	5	69	
8	Genetic engineering 2	BT.08.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	94	6	E	84	6	94	
9	Toxicology	BT.09.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44	
10	Biotechnologies for waste recovery	BT.10.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44	
11	Quality management	BT.11.D.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	C	84	4	44	
12	Biotechnological processing of raw plant materials and animal products	BT.12.S.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44	
13	DIPLOMA project writing	BT.13.S.8	-	-	-	-	-	-	-	-	-	-	-	2.14	-	60	60	15	3	C	60	3	15	
TOTAL			12	2	10	0	336	504	414	30	4E+2C	12	0	12	0	396	564	354	30	5E+2C	1068	60	768	
			24								24													
-	DIPLOMA DEFENSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	E	-	10	-	
FACULTATIVE (OPTIONAL) subjects:																								
1	Fundamentals of Entrepreneurship / Business Start-up / Entrepreneurship	BT.01.C.7	1	2	-	-	42	56	-	3	C	-	-	-	-	-	-	-	-	-	-	56	3	0
2	Innovative Entrepreneurship / Entrepreneurship in Animal Husbandry / Entrepreneurial Design	BT.02.C.8	-	-	-	-	-	-	-	-	-	1	2	-	-	42	56	-	3	C	56	3	0	
3	Driving motor vehicles 1 (optional)	BT.03.C.7	1	-	2	-	42	56	-	2	C	-	-	-	-	-	-	-	-	-	-	56	2	0
4	Driving motor vehicles 2 (optional)	BT.04.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 - 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	0.821	14	24	336		414			750	0.628	14	24	336		354						

Approved by the DEAN,

Prof. Dipl.Eng. Ioan PEȚ, PhD.

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