

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.

Ediția 1/ Revizia 0

Date:

CURRICULUM
for the 1st year of study, academic year 2025/2026

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.DOB.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69
2	Biochemistry	BT.02.S.DOB.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69
3	Analytical chemistry and instrumental analysis	BT.03.S.DOB.1	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69
4	Mathematics and statistics	BT.04.F.DOB.1	1	1	-	-	28	42	22	2	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	2	22
5	Chemistry	BT.05.F.DOB.1	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	4	58
6	General microbiology	BT.06.F.DOB.1	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	69
7	Informatics	BT.07.F.DOB.1	0	2	-	-	28	28	22	2	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22
8	General biotechnologies	BT.08.S.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	-	-	-	-	84	5	69
9	Botany	BT.09.F.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	-	-	-	-	84	4	44
10	Biophysics	BT.10.F.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	C	-	-	-	-	84	4	44
11	Cell biology	BT.11.F.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	-	-	-	-	84	5	69
12	Ecology and environmental protection	BT.12.S.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	-	-	-	-	84	4	44
13	Physiology 1	BT.13.S.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	-	-	-	-	84	5	69
14	Practical training	BT.14.S.DOB.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	0	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	336	504	354	30	5E+2C	994	60	754							
ELECTIVE subjects (choose 1 out of 2):																														
15	Foreign language 1 (English)	BT.15.C.DOP.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22
16	Foreign language 2 (French)	BT.16.C.DOP.1	0	2	-	-	28	28	22	2	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	2	22
FACULTATIVE (OPTIONAL) subjects:																														
1	Physical education 1	BT.01.C.DFA.1	0	1	-	-	14	14	-	1	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	1	0
2	Educational psychology	DPPD.02.C.DFA.1	2	2	-	-	56	84	-	5	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	5	0
3	Physical education 2	BT.03.C.DFA.2	-	-	-	-	-	-	-	-	-	0	1	-	-	-	14	14	-	2	C	-	-	-	-	-	-	14	2	0
4	Pedagogy I (Fundamentals of Pedagogy. Theory and Methodology of the Curriculum)	DPPD.04.C.DFA.2	-	-	-	-	-	-	-	-	-	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 - 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	0.702	14	24	336															

Approved by the DEAN,
 Prof. Dipl.Eng. Ioan PEȚ, PhD.

Date: 08.07.2025

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 2025/2026

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.S.DOB.3	1	-	2	-	42	56	58	4	E	-	-	-	-	-	-	-	-	-	-	56	4	58	
2	Cell and tissue cultures 1	BT.02.S.DOB.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69	
3	Applied microbiology	BT.03.S.DOB.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69	
4	Experimental techniques	BT.04.S.DOB.3	1	-	2	-	42	56	33	3	C	-	-	-	-	-	-	-	-	-	-	56	3	33	
5	Physiology 2	BT.05.S.DOB.3	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69	
6	Bioethics and biosecurity in biotechnologies	BT.06.S.DOB.3	2	1	-	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58	
7	Communication	BT.07.C.DOB.4	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	28	42	47	3	E	42	3	47
8	Quantitative genetics	BT.08.S.DOB.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	44	4	E	84	4	44
9	Molecular biology	BT.09.S.DOB.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	44	4	E	84	4	44
10	Cell and tissue cultures 2	BT.10.S.DOB.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	44	4	E	84	4	44
11	General enzymology	BT.11.F.DOB.4	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	42	56	58	4	C	56	4	58
12	Agricultural technologies	BT.12.S.DOB.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	44	4	E	84	4	44
13	Reproduction biotechnologies	BT.13.S.DOB.4	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	56	84	44	4	C	84	4	44
14	Practical training	BT.14.S.DOB.4	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	15	3	C	0	3	15
-	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	350	518	340	30	5E+3C	994	60	754		
			24								25														
ELECTIVE subjects (choose 1 out of 2):																									
15	Cellular pathology	BT.15.S.DOP.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58	
16	Animal pathology	BT.16.S.DOP.3	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58	
FACULTATIVE (OPTIONAL) subjects:																									
1	Ethology	BT.01.S.DFA.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.DFA.3	2	2	-	-	56	84	-	5	E	-	-	-	-	-	-	-	-	-	-	84	5	0	
3	Didactics of the Specialization	DPPD.03.C.DFA.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 - 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	476	414		750	0.656	14	25	350	518	340								

Approved by the DEAN,

Prof. Dipl.Eng. Ioan PEȚ, PhD.

Date: 08.07.2025

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 2025/2026

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.S.DOB.5	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	-	84	5	69		
2	Immunology	BT.02.S.DOB.5	2	-	1	-	42	56	83	5	E	-	-	-	-	-	-	-	-	-	-	56	5	83		
3	Laboratory diagnosis	BT.03.S.DOB.5	2	-	1	-	42	56	58	4	C	-	-	-	-	-	-	-	-	-	-	56	4	58		
4	Molecular markers	BT.04.S.DOB.5	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	-	84	5	69		
5	Biotechnologies in apiculture and sericulture	BT.05.S.DOB.5	2	-	2	-	56	84	44	4	E	-	-	-	-	-	-	-	-	-	-	84	4	44		
6	Ethics and academic integrity	BT.06.C.DOB.5	1	-	-	-	14	28	36	2	C	-	-	-	-	-	-	-	-	-	-	28	2	36		
7	Biotechnologies in aquaculture	BT.07.S.DOB.6	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44			
8	Biotechnological equipment	BT.08.S.DOB.6	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44			
9	Virology	BT.09.S.DOB.6	-	-	-	-	-	-	-	-	-	2	-	1	-	42	56	58	4	E	56	4	58			
10	Special Enzymology	BT.10.S.DOB.6	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	C	84	5	69			
11	Practical Training	BT.11.S.DOB.6	-	-	-	-	-	-	-	-	-	-	-	120	-	-	-	5	5	C	0	5	5			
-	ELECTIVE subjects I	-	3	-	3	-	84	126	41	5	E	-	-	-	-	-	-	-	-	-	126	5	41			
-	ELECTIVE subjects II	-	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	41	5	E	126	5	41			
-	ELECTIVE subjects III	-	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33			
TOTAL			14	0	11	0	350	518	400	30	4E+3C	13	1	10	0	336	490	294	30	5E+2C	1008 36	60	694			
ELECTIVE subjects I (choose 1 out of 2):			25																							
12	Ecological technologies for monogastric animal husbandry	BT.12.S.DOP.5	3	-	3	-	84	126	41	5	E	-	-	-	-	-	-	-	-	-	126	5	41			
13	Technologies for animal husbandry 1	BT.13.S.DOP.5	3	-	3	-	84	126	41	5	E	-	-	-	-	-	-	-	-	-	126	5	41			
ELECTIVE subjects II (choose 1 out of 2):			24																							
14	Ecological technologies for polygastric animal husbandry	BT.14.S.DOP.6	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	41	5	E	126	5	41			
15	Technologies for animal husbandry 2	BT.15.S.DOP.6	-	-	-	-	-	-	-	-	-	3	-	3	-	84	126	41	5	E	126	5	41			
ELECTIVE subjects III (choose 1 out of 2):			33																							
16	Entrepreneurship in biotechnology	BT.16.C.DOP.6	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33			
17	Traceability	BT.17.C.DOP.6	-	-	-	-	-	-	-	-	-	2	1	-	-	42	56	33	3	E	56	3	33			
FACULTATIVE (OPTIONAL) subjects:			25																							
1	Bioinformatics	BT.01.S.DFA.5	1	-	2	-	42	56	-	3	C	-	-	-	-	-	-	-	-	-	56	3	0			
2	Equitation	BT.02.S.DFA.6	-	-	-	-	-	-	-	-	-	1	-	2	-	42	56	-	3	C	56	3	0			
3	Computer-Assisted Instruction	DPPD.03.C.DFA.5	1	1	-	-	28	42	-	2	C	-	-	-	-	-	-	-	-	-	42	2	0			
4	Pedagogical Practice in Compulsory Pre-University Education I	DPPD.04.C.DFA.5	0	3	-	-	42	42	-	3	C	-	-	-	-	-	-	-	-	-	42	3	0			
5	Classroom Management	DPPD.05.C.DFA.6	-	-	-	-	-	-	-	-	-	1	1	-	-	28	42	-	3	E	42	3	0			
6	Pedagogical Practice in Compulsory Pre-University Education II	DPPD.06.C.DFA.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	0,772	14	25	350		400		750	0,6	14	24	336		294									

Avizat DECAN,
 Prof. dr. ing. Ioan PEȚ
 Data: 08.07.2025□

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 2025/2026

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.DOB.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	84	5	69		
2	Genetic engineering 1	BT.02.S.DOB.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	84	5	69		
3	Management and marketing of biotechnological products	BT.03.S.DOB.7	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	84	5	69		
4	Biotechnologies in animal nutrition	BT.04.S.DOB.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.DOB.7	2	-	2	-	56	84	69	5	E	-	-	-	-	-	-	-	-	-	84	5	69		
6	Biotechnological therapeutic products	BT.06.S.DOB.7	2	-	2	-	56	84	69	5	C	-	-	-	-	-	-	-	-	-	84	5	69		
7	Environmental protection biotechnologies	BT.07.S.DOB.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	84	5	69		
8	Genetic engineering 2	BT.08.S.DOB.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	69	5	E	84	5	69		
9	Toxicology	BT.09.S.DOB.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44		
10	Biotechnologies for waste recovery	BT.10.S.DOB.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	19	3	E	84	3	19		
11	Biotechnological processing of raw plant materials and animal products	BT.11.S.DOB.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	44	4	E	84	4	44		
12	DIPLOMA project writing	BT.12.S.DOB.8	-	-	-	-	-	-	-	-	-	-	-	126	-	-	-	24	6	C	0	6	24		
-	ELECTIVE subjects	-	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	19	3	C	84	3	19		
TOTAL			12	0	12	0	336	504	414	30	4E+2C	12	0	12	0	336	504	288	30	5E+2C	1008	60	702		
			24									24										36			
-	DIPLOMA DEFENSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	E	-	10	-		
ELECTIVE subjects (choose 1 out of 2):																									
13	Quality management	BT.13.S.DOP.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	19	3	C	84	3	19		
14	Innovative entrepreneurship	BT.14.S.DOP.8	-	-	-	-	-	-	-	-	-	2	-	2	-	56	84	19	3	C	84	3	19		
FACULTATIVE (OPTIONAL) subjects:																									
1	Business Start-up / Entrepreneurship	BT.01.S.DFA.7	1	2	-	-	42	56	-	3	C	-	-	-	-	-	-	-	-	-	56	3	0		
2	Entrepreneurship in Animal Husbandry / Entrepreneurial Design	BT.02.S.DFA.8	-	-	-	-	-	-	-	-	-	1	2	-	-	42	56	-	3	C	56	3	0		
3	Driving motor vehicles 1 (optional)	BT.03.C.DFA.7	1	-	2	-	42	56	-	2	C	-	-	-	-	-	-	-	-	-	56	2	0		
4	Driving motor vehicles 2 (optional)	BT.04.C.DFA.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	0.571	14	24	336		288							

Approved by the DEAN,
 Prof. Dipl.Eng. Ioan PET, PhD.
 Data: 08.07.2025□