



Bachelor degree study programme: Biotechnology

Faculty of Natural Science

Curriculum

No.	Study course	Course code	ECTS Credits
I Year, I Semester			
1.	Mathematics	MFITB004	6
2.	General and Analytical Chemistry	BBKN2001	5
3.	General Biology	BIO1001	3
4.	Bionics and bioengineering	BIO2010	3
5.	Professional Language of Natural Sciences	LGF2002	3
6.	A group course		6
7.	Computer's literacy	INF0203	4
		Total:	30
I Year, II Semester			
1.	Calculus 2	MAT1014	6
2.	Organic and Bioorganic Chemistry	BBK2002	6
3.	Physics I (Mechanics and molecular physics)	FIZN1007	6
4.	Biology of Plants and Animals	BIO2011	6
5.	A group courses		6
		Total:	30
II Year, III Semester			
1.	General Genetics	BIO3005	6
2.	Instrumental analysis	BBK2011	5
3.	Physical and colloidal chemistry	BBK3003	6
4.	Physics II (Electromagnetism and optics)	FIZ1008	6
6.	A and B group courses		8
		Total:	30
II Year, IV Semester			
1.	General Biotechnology	BIO3010	5
2.	General Engineering and Electronics	FIZ2010	5
3.	Information Systems	INF3006	6
4.	Microbiology	BIO2013	5
	Elective Courses (1)		
5.	Environment and Development	APLN2001	5
5.	Morphophysiology	BION4002	5
5.	Human Ecology	APLN3005	5
6.	A group course		4



		Total:	30
III Year, V Semester			
1.	Biochemistry	BBK3001	6
2.	Biocompound Purification and Analysis	BTC3003	4
3.	Cell Cultures	BTC3001	4
4.	Introductory Practice	BIO3019	3
5.	Industrial Biotechnology	BIO3020	3
	Elective Courses (1)		
6.	Pharmaceutical Biotechnology and Drug Engineering	BTC3005	4
6.	Plant Biochemistry	BBK3022	4
7.	A and B group courses		4
		Total:	28
VI Semester			
1.	Biophysics	BION3006	5
2.	Plant Physiology and Biotechnology	BIO3021	5
3.	Bioinformatics	BIO3022	4
4.	Molecular Biology and Gene Engineering	BTC3002	4
5.	Practice 2	BIO3017	6
	Elective Courses (2)		
5.	Food Biotechnology	BIO4022	4
5.	Industrial Plant and Process Design	BTC 3004	4
6.	A and B group courses		4
		Total:	32
IV Year, VII Semester			
1.	Cell biology	BBK4001	6
2.	Animal Biotechnology and Tissue Engineering	BIO4014	5
3.	Statistic in Environment and Biology	MAT2012	6
4.	Molecular Modeling	BIO4010	3
5.	Engineering Practice	BIO4020	6
	Elective Courses (1)		
6.	Pharmaceutical Biochemistry	BBK4012	4
6.	Biological Research Methodology	BION3003	4
6.	Physics III (Quantum Mechanics)	FIZ2009	4
7.	A and B group courses		4
	Sum:		34
VIII Semester			
1.	Bachelor Graduation Paper	BEN0002	15
2.	Material Science	FIZ3012	3
3.	Patent Law and Foundations of Law	TEI4024	3
	Elective Courses (1)		
4.	Environmental Engineering	APLN3006	5



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4.	Special Biotechnology	BIO3018	5
		Total:	26
	Total for the Programme:		240