

Program of BSc level studies of biotechnology (2016/17)

L - lecture, c – practices, seminars, laboratories

Sem.	Lp.	Subject	ECTS	Examinaion (E) or subject completion (z) after semester	Hours				Number of class hours												
					Total number of hours	Lecture (L)	Practices (c)	Seminar (c)	Laboratories (c)	I year		II year				III year					
										1 sem.		2 sem.		3 sem.		4 sem.		5 sem.		6 sem.	
										15 weeks		15 weeks		15 weeks		15 weeks		15 weeks		15 weeks	
L*	c*	L*	c*	L*	c*	L*	c*	L*	c*	L*	c*	L*	c*	L*	c*						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I	1.	Biology	5 (3/2)	1E	60	30			30	30	30										
	2.	General and Inorganic Chemistry	8(5/3)	1E	60	30			30	30	30										
	3.	Mathematics with Elements of Statistics	10 (6/4)	1E	60	30	30			30	30										
	4.	Biochemical Calculations	-*	1z***	45		45			-	45										
	5.	Computer Sciences	4 (2/2)	1z	45	15	30			15	30										
	6.	Polish / Foreign language	-**	1z***	60		60			-	60										
27 ECTS / 330H																					
II	7.	Physicochemical Methods in Biology	6(3/3)	2E	75	30			45			30	45								
	8.	Structure and Function of Biomacromolecules	8 (4/4)	2E	90	30			60			30	60								
	9.	Organic Chemistry	8 (4/4)	2E	90	45			45			45	45								
	10.	Biochemical Calculations	8	2z	30		30					-	30								
	11.	Polish / Foreign language	-**	2z***	60		60					-	60								
	12.	Sport activities	1	2z	30				30			-	30								
31 ECTS / 375H																					

III	13.	Metabolism of Proteins, Carbohydrates, Nucleotides and Lipids	11(6/5)	3E	135	45			90						45	90				
	14.	Metabolism of Nucleic Acids	4	3E	20	20									20	-				
	15.	Biophysical Chemistry	7(4/3)	3E	60	30		10	20						30	30				
	16.	Plant Physiology	4(2/2)	3E	50	30			20						30	20				
	17.	Genetics (L)	4	3E	30	30									30	-				
	18.	Polish / Foreign language	-**	3z***	60		60								-	60				
30 ECTS / 355H																				
IV	19.	Microbiology	4(2/2)	4E	60	30			30							30	30			
	20.	Animal Physiology	4(2/2)	4z	60	30			30							30	30			
	21.	Genetics (c)	2	4z	30				30							30	-			
	22.	Techniques in Molecular Biology	4(2/2)	4z	65	20			45							20	45			
	23.	Biophysics	6(4/2)	4E	60	30			30							30	30			
	24.	Bionformatics	4(2/2)	3z	45	15	30									15	30			
	25.	Intellectual property law	2	4z	15	15										15	-			
	26.	Seminar	2	4z	30			30								-	30			
28 ECTS / 365H																				
V	27.	Molecular Organization of the Cell	7(4/3)	5E	90	30			60								30	60		
	28.	Biotechnology	7(4/3)	5E	75	30			45								30	45		
	29.	Elective lecture	2	5z	15	15											15	-		
	30.	Preparative Biochemistry	5(3/2)	5E	45	15			30								15	30		
	31.	Industrial Microbiology	3(2/1)	5E	60	30			30								30	30		
	32.	Bioethics	2	5z	15	15											15	-		
	33.	Seminar	2	5z	30			30									-	30		
28 ECTS / 330H																				
VI	34.	Bioprocess Engineering	3 (2/1)	6E	45	30			15									30	15	
	35.	Enzymology	5(3/2)	6E	75	30			45									30	45	
	36.	Economy	2(1/1)	6z	45	30	15											30	15	
	37.	Seminar	2	6z	30			30										-	30	
	38.	Immunology	5(3/2)	6E	60	30			30									30	30	
	39.	Cell Cultures Techniques	3(2/1)	6E	45	15			30									15	30	
	40.	BSc seminar	12	6z	5			5										-	5	
32 ECTS / 305H Total 188 ECTS, 2060 hours																				

*ECTS will be awarded after successful completion of the course (2nd semestr).

**12 ECTS will be awarded after successful completion of the course (3th semester), however it is allowed to take the final exam earlier.

*** Students receive a „pass” or „fail” grade.