Üsküdar University Faculty of Engineering and Natural Sciences Department of Molecular Biology and Genetics (English)

YEAR ONE

	1st Term						
Code	Course Name	Т	Р	L	С	ECTS	Prerequisite
MBG 101	General Biology-I	3	0	2	4	7	
MATH 101	Calculus-I	3	2	0	4	6	
PHYS 101	Physics-I	3	0	2	4	6	
CHEM 101	General Chemistry-I	3	0	2	4	6	
ENG 101	English-I	3	0	0	3	3	
RCUL 101	University Culture	0	2	0	1	1	
RPSC 109	Positive Psychology and Communcation Skills	3	0	0	3	5	
Total Credit	is	15	4	6	23	34	

	2nd Term							
Code	Course Name	Т	Р	L	С	ECTS	Prerequisite	
MBG 102	General Biology-II	3	0	2	4	7		
MATH 102	Calculus-II	3	2	0	4	6		
PHYS 102	Physics-II	3	0	2	4	6		
CHEM 102	General Chemistry-II	3	0	2	4	6		
ENG 102	English-II	3	0	0	3	3		
RCUL 102	University Culture	0	2	0	1	1		
Total Credits		15	4	6	20	29		

YEAR TWO

	Sid term						
Code	Course Name	Т	Р	L	С	ECTS	Prerequisite
MBG 211	Genetics	3	0	2	4	7	MBG 101 or 102
MBG 213	Histology and Embryology	2	0	2	3	4	
MBG 209	Microbiology	3	0	2	4	6	
MBG 205	Departmental Elective-I	3	0	0	3	5	
COME 211	Introduction to Programming for Engineers	1	0	2	2	3	
TURK 101	Turkish Language - I	2	0	0	2	3	
ATA 101	Principles of Atatürk and History of Revolutions - I	2	0	0	2	3	
Total Credit	s	16	0	8	20	31	

	4th Term								
Code	Course Name	Т	P	L	С	ECTS	Prerequisite		
MBG 212	Molecular Genetics	3	0	0	3	4	MBG 101 or 10		
MBG 204	Introduction to Bioinformatics	2	2	0	3	5			
CHEM 104	Organic Chemistry	3	0	2	4	6			
MBG 210	Physiology	3	0	2	4	6			
TURK 102	Turkish Language - II	2	0	0	2	3			
ATA 102	Principles of Atatürk and History of Revolutions - II	2	0	0	2	3			
Total Credits	•	15	2	4	18	27			
Total Credits	i	15	2	4	18	27			

YEAR THREE 5th Term T P L C ECTS Prerequisite Code 3 0 2 4 7 CHEM 104 MBG 309 Biochemistry-I MBG 311 Molecular Cell Biology 3 0 2 4 7 MBG 101 or 102 2 0 0 2 MBG 315 Bioethics 3 3 0 0 3 MBG 307 5 Departmental Elective-II XXXXXX Field Elective - I 3 0 0 3 2 0 0 2 3 RPRE 104 Entrepreneurship and Project Culture 16 0 4 18 30 Total Credits

	6th Term							
Code	Course Name	Т	Р	L	С	ECTS	Prerequisite	
MBG 310	Biochemistry-II	3	0	2	4	7	CHEM 104	
MBG 304	Recombinant DNA Technology	3	2	0	3	7	MBG 211	
MBG 312	Biotechnology	3	0	0	3	4		
MBG XXX	Departmental Elective - III	3	0	0	3	5		
XXXXXX	Social Elective - II	3	0	0	3	5		
MBG 382	Summer Practice	0	0	0	0	4		
Total Credits		15	4	2	16	32		
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7th Term T P L C ECTS Prerequisite Code Course Name 0 0 6 3 10 0 2 0 1 2 MBG 491 Graduation Project MBG 407 Seminar 2 0 0 2 MBG 405 3 Immunology 3 0 0 3 5 MBG XXX Departmental Elective - IV 3 0 0 3 3 0 0 3 5 MBG XXX Departmental Elective-V XXXXXX Social Elective - III 5 11 2 6 15 30 Total Credits

8th Term						
Course Name	Т	Р		С	ECTS	Prerequisite
Graduation Thesis	0	0	6	3	14	MBG 491
Departmental Elective -VI	3	0	0	3	5	
Field Elective - II	3	0	0	3	5	
Elective (2.Foreign Language)	2	0	0	2	3	
5	8	0	6	11	27	
	Course Name Graduation Thesis Departmental Elective -VI Field Elective - II Elective (2.Foreign Language)	Course Name T Graduation Thesis 0 Departmental Elective -VI 3 Field Elective - II 3 Elective (2.Foreign Language) 2	Course Name T P Graduation Thesis 0 0 Departmental Elective -VI 3 0 Field Elective - II 3 0 Elective (2.Foreign Language) 2 0	Course Name T P Graduation Thesis 0 0 6 Departmental Elective -VI 3 0 0 Field Elective - II 3 0 0 Elective (2.Foreign Language) 2 0 0	Course Name T P C Graduation Thesis 0 0 6 3 Departmental Elective -VI 3 0 0 3 Field Elective - II 3 0 0 3 Elective (2.Foreign Language) 2 0 0 2	Course Name T P C ECTS Graduation Thesis 0 0 6 3 14 Departmental Elective -VI 3 0 0 3 5 Field Elective - II 3 0 0 3 5 Elective (2.Foreign Language) 2 0 0 2 3

TOTAL LOCAL CREDITS FOR GRADUATION	141
ECTS Credits	240
ECTS Credits of Elective Courses	50
Elective Courses Ratio	21

Elective Courses Pool									
Department	al Elective Courses	Elective Foreign Languages							
MBG 205 Plant Biology	MBG 323 Special Topics in Neuroscience	XXX Spanish							
MBG 307 Neurobiology	MBG 330 Epigenetics	XXX Arabic							
MBG 313 Cancer Molecular Biology	MBG 333 Molecular Evolution	XXX Chinese							
MBG 203 Biostatistics	MBG 411 Animal Behavior	XXX Russian							
MBG 316 Genes, Environment and Behavior	MBG 415 Industrial Microbiology								
MBG 317 Memory	MBG 417 Computational Neuron Models	For Field Elective courses, any course having appropriate credits from other departments of Faculty of Engineering and Natural Sciences can be elected.							
MBG 318 Microbial Metabolism	MBG 418 Pharmacogenetics	departments of racuity of Engineering and Natural Sciences can be elected.							
MBG 319 Functional Genomics and Transciptomics	MBG 419 Sports and Performance Genetics	For Social Elective courses any course having appropriate credits from other							
MBG 321 Plant Genetics and Biotechnology	MBG 427 Biochemical Ecology	faculties can be elected.							
MBG 322 Signal Transduction		•							

YEAR FOUR