



Faculty of Arts and Sciences
Molecular Biology and Genetics
Moleküler Biyoloji ve Genetik

1.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
ATİ127	Ataturk's Principles and History of Turkish Revolution I	2+0+0	Compulsory	2
MBG115	General Biology	4+0+0	Compulsory	6
MBG117	General Biology Laboratory I	0+0+2	Compulsory	4
MBG119	Principles of systematic I	2+0+0	Compulsory	4
MBG121	General Chemistry I	2+0+0	Compulsory	3
MBG123	General Chemistry Laboratory I	0+0+2	Compulsory	2
MBG125	General Mathematics	2+0+0	Compulsory	3
MBG127	Occupational health and Safety	2+0+0	Compulsory	2
TRD127	Turkish language I	2+0+0	Compulsory	2
YDÖ127	The English I	2+0+0	Compulsory	2
Total ECTS				30

2.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
ATİ128	Ataturk's Principles and History of Turkish Revolution II	2+0+0	Compulsory	2
MBG116	General Biology II	4+0+0	Compulsory	6
MBG118	General Biology Laboratory II	0+0+2	Compulsory	4
MBG120	Biophysics	2+0+0	Compulsory	3
MBG122	Principles of systematic II	2+0+0	Compulsory	4
MBG124	General Chemistry II	2+0+0	Compulsory	3
MBG126	General Chemistry Laboratory II	0+0+2	Compulsory	2
MBG128	Organic chemistry	2+0+0	Compulsory	2
TDİ128	Turkish language II	2+0+0	Compulsory	2
YDÖ128	The English II	2+0+0	Compulsory	2
KPD102	Career Planning	2+0+0	Elective	2
Total ECTS				32

3.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG205	Animal physiology	4+0+0	Compulsory	4
MBG217	Genetic I	4+0+0	Compulsory	6
MBG219	Genetics Applications I	0+2+0	Compulsory	4
MBG221	Molecule and Cell Information	4+0+0	Compulsory	4
MBG225	Bioinformatics	4+2+0	Compulsory	4
MBG227	SELECT: Reading and Speaking in English I	4+0+0	Elective	4
MBG229	SELECT: Enzymology	4+0+0	Elective	4
MBG231	HSE: Chemical Industry in Turkey	4+0+0	Elective	4
MBG233	SELECT: General Medicinal Plants	4+0+0	Elective	4
MBG235	SELECT: Park and Forest Trees	4+0+0	Elective	4
FOR3	Formasyon Dersleri	3+0+0	Elective	8
Total ECTS				50
Course Groups				
PFE201	Introduction to Education	3+0+0	Elective	4
PFE203	Guidance and Special Education	3+0+0	Elective	4

4.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG218	Genetic II	4+0+0	Compulsory	6
MBG220	Genetics Applications II	0+2+0	Compulsory	4
MBG222	Microbiology	4+0+0	Compulsory	4
MBG224	Microbiology Laboratory	0+0+2	Compulsory	2
MBG226	Biostatistics	4+0+0	Compulsory	4
MBG228	Plant Physiology	4+0+0	Compulsory	2
MBG230	SELECT: Reading and Speaking in English II	4+0+0	Elective	4
MBG232	SELECT: Phytotherapy and Aromatherapy	4+0+0	Elective	4
MBG236	SELECT: Latin (Grammar)	4+0+0	Elective	4
MBG238	SELECT: Plant Biochemistry	4+0+0	Elective	4
MBG240	SELECT: Molecular Endocrinology	4+0+0	Elective	4
FOR4	Formasyon Dersleri	3+0+0	Elective	4

			Total ECTS	46
Course Groups				
PFE202	Educational Psychology	3+0+0	Elective	4

5.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG317	Biotechnology	4+0+0	Compulsory	4
MBG319	Biochemistry I	4+0+0	Compulsory	4
MBG321	Biochemistry Laboratory I	0+0+2	Compulsory	2
MBG323	Molecular Biology Techniques	2+0+0	Compulsory	4
MBG325	Molecular Genetics	2+0+0	Compulsory	4
MBG327	SELECT: Reading and Speaking in English III	4+0+0	Elective	4
MBG329	SELECT: Population Genetics	4+0+0	Elective	4
MBG331	SELECT: Plant Embryology	4+0+0	Elective	4
MBG333	HSE: Herbal Products of Biotechnological Origin	4+0+0	Elective	4
FOR5	Formasyon Dersleri	3+0+0	Elective	8

			Total ECTS	42
Course Groups				
PFE301	Teaching Principles and Methods	3+0+0	Elective	4
PFE303	Special Teaching Methods	3+0+0	Elective	4

6.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG316	Microbial Biotechnology	4+0+0	Compulsory	6
MBG318	Biochemistry II	4+0+0	Compulsory	4
MBG320	Biochemistry Laboratory II	0+0+2	Compulsory	2
MBG322	Tissue Culture	4+0+0	Compulsory	6
MBG324	SELECT: Reading and Speaking in English IV	4+0+0	Elective	4
MBG326	SELECT: Human Genetics	4+0+0	Elective	4
MBG328	SELECT: Environmental Biology	4+0+0	Elective	4
MBG330	SELECT: DNA Cloning Techniques	4+0+0	Elective	4
MBG334	SELECT: Molecular Modeling and Simulation	4+0+0	Elective	4
MBG336	SELECT: Protein Purification and Characterization	4+0+0	Elective	4
MBG338	SELECT: Proteomics	4+0+0	Elective	4
FOR6	Formasyon Dersleri	3+0+0	Elective	8

			Total ECTS	54
Course Groups				
PFE302	Measurement and Evaluation in Education	3+0+0	Elective	4
PFE304	Instructional Technologies	2+0+0	Elective	3

7.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG415	Genetic Engineering	4+0+0	Compulsory	8
DNA441	SELECT: DNA Barcoding	4+0+0	Elective	4
MBG417	SELECT: Fermentation Technology	4+0+0	Elective	4
MBG419	SELECT: Biology Philosophy	4+0+0	Elective	4
MBG421	SELECT: Microbial Ecology	4+0+0	Elective	4
MBG423	SELECT: Virology	4+0+0	Elective	4
MBG425	SELECT: Immunology	4+0+0	Elective	4
MBG427	Graduation Thesis I	4+0+0	Elective	4
MBG429	SELECT: Human Embryology	4+0+0	Elective	4
MBG431	HSE: Genetic Resources and Conservation	4+0+0	Elective	4
MBG433	SELECT: Ethnobotany	4+0+0	Elective	4
MBG435	SELECT: Endocrinology	4+0+0	Elective	4
MBG437	SELECT: Cancer Biology	4+0+0	Elective	4
MBG439	SELECT: New Breeding Methods	4+0+0	Elective	4
FOR7	Formasyon	2+0+0	Elective	4

			Total ECTS	64
Course Groups				
PFE401	Classroom Management	2+0+0	Elective	3

8.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
MBG418	Molecular Biotechnology	4+0+0	Compulsory	8
MBG420	Final Study	1+2+0	Compulsory	10
GÖÇ402	Volunteering Studies	1+2+0	Elective	4
MBG422	SELECT: Cognitive Sciences	4+0+0	Elective	4
MBG424	SELECT: Clinical Biochemistry	4+0+0	Elective	4
MBG426	SELECT: Sufi Music	4+0+0	Elective	4

MBG428	SELECT: Bioethics	4+0+0	Elective	4
MBG430	SELECT: Primary and Secondary Metabolites	4+0+0	Elective	4
MBG432	SELECT: Cytogenetics	4+0+0	Elective	4
MBG434	SELECT: Plant Growth Regulators	4+0+0	Elective	4
MBG436	SELECT: Industrial Microbiology	4+0+0	Elective	4
MBG438	SELECT: Toxiology	4+0+0	Elective	4
FOR8	Formasyon	1+8+0	Elective	10
			Total ECTS	68
Course Groups				
PFE402	Teaching Practice	1+8+0	Elective	10