



FACULTY OF ENGINEERING AND NATURAL SCIENCES

MOLECULAR BIOLOGY AND GENETICS DEPARTMENT

I. Semester							II. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1400111001	Calculus I	4	0	4	6	Z		1400121002	Calculus II	4	0	4	6	Z			
1400111009	Programming I	1	4	3	3	Z		1400121012	Programming II	1	4	3	3	Z			
1400111005	Physics I	3	2	4	5	Z		1400121006	Physics II	3	2	4	5	Z			
1400111007	Chemistry	2	2	3	5	Z		1414121002	Analytical Chemistry	2	2	3	6	Z			
1414111003	General Biology I	3	2	4	5	Z		1414121004	General Biology II	3	2	4	6	Z			
5010111015	Türk Dili	4	0	4	4	Z		5010111002	Atatürk İlkeleri ve İnkılap Tarihi	4	0	4	4	Z			
5010111005	Kariyer Planlama	1	0	1	2	Z											
<b>TOTAL</b>							<b>23</b>	<b>30</b>	<b>TOTAL</b>							<b>22</b>	<b>30</b>
III. Semester							IV. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1414211001	Organic Chemistry	3	2	4	7	Z		1400221012	Occupational Safety and Health	2	0	2	2	Z			
1414211007	Cell Biology	3	2	4	8	Z		1400221020	Entrepreneurship	2	0	2	3	Z			
1414211009	Genetics	3	2	4	8	Z		1414221012	Human Genetics	3	2	4	6	Z			
5010111011	Almanca I	2	0	2	2	Z		1414241010	General Microbiology	3	2	4	7	Z			
	Departmental Elective				3	S		5010111012	Almanca II	2	0	2	2	Z			
									Departmental Elective				3	S			
									Departmental Elective				3	S			
<b>TOTAL</b>							<b>17</b>	<b>30</b>	<b>TOTAL</b>							<b>20</b>	<b>30</b>
V. Semester							VI. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1400311025	Biochemistry I	3	2	4	6	Z		1414321002	Biochemistry II	3	2	4	6	Z			
1414311003	Molecular Genetics	3	2	4	6	Z		1414321004	Molecular Biology	3	2	4	7	Z			
	University Elective				2	S		1414321006	Project Management	3	0	3	4	Z			
	Departmental Elective				3	S			Departmental Elective				3	S			
	Departmental Elective				3	S			University Elective				2	S			
	Departmental Elective				3	S			Departmental Elective				3	S			
<b>TOTAL</b>							<b>19</b>	<b>30</b>	<b>TOTAL</b>							<b>19</b>	<b>30</b>
VII. Semester							VIII. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1400411001	Interdisciplinary Design Studies	2	0	2	6	Z		1414421002	Seminars in Molecular Biology and Genetics II	2	0	2	3	Z			
1414411001	Seminars in Molecular Biology and Genetics I	2	0	2	3	Z		1414421010	Graduation Project II	0	4	2	6	Z			
1414411009	Graduation Project I	0	4	2	6	Z		1414421006	Bioethics	2	0	2	3	Z			
1414411005	Bioinformatics	3	2	4	7	Z			University Elective				2	S			
	University Elective				2	S			Departmental Elective				3	S			
	Departmental Elective				3	S			Departmental Elective				3	S			
									Departmental Elective				3	S			
<b>TOTAL</b>							<b>15</b>	<b>30</b>	<b>TOTAL</b>							<b>17</b>	<b>30</b>
<b>Total Credit/Hours</b>							<b>152</b>										
<b>Total ECTS</b>							<b>240</b>										

DEPARTMENTAL ELECTIVES					
Course Code	Course Title	T	P	Cr.	Elective
<b>Departmental Electives</b>					
1414002048	Technical Training	0	6	3	S
1414002001	Biostatistics	2	2	3	S
1414002002	Recent Topics in Molecular Biology and Genetics	2	2	3	S
1414002003	Histology	2	2	3	S
1414002004	Systems Biology	2	2	3	S
1414002005	Cytogenetics	2	2	3	S
1414002006	Computational Biology	2	2	3	S
1414002007	Forensic Science	2	2	3	S
1414002008	Human Physiology	2	2	3	S
1414002009	Research Studies	2	2	3	S
1414002010	Fermentation Technology	2	2	3	S
1414002011	Biophysics	2	2	3	S
1414002012	Biotechnology	2	2	3	S
1414002013	Human Anatomy	2	2	3	S
1414002014	Recombinant DNA Technologies	2	2	3	S
1414002015	Stem Cells	2	2	3	S
1414002016	Developmental Biology	2	2	3	S
1414002017	Virology	2	2	3	S
1414002018	Ecology	2	2	3	S
1414002019	Nutrigenomics	2	2	3	S
1414002020	History of Science	2	2	3	S
1414002021	Biomaterials	2	2	3	S
1414002022	Molecular Biology of Cancer	2	2	3	S
1414002023	Neurobiology and Neuroengineering	2	2	3	S
1414002024	Introduction to Pathology	2	2	3	S
1414002025	Immunology	2	2	3	S
1414002026	Enzymology	2	2	3	S
1414002027	Drug Development	2	2	3	S
1414002028	Engineering Economy	2	2	3	S
1414002029	Genetic Disorders and Gene Therapy	2	2	3	S
1414002030	Pharmacogenetic	2	2	3	S
1414002031	Embryology	2	2	3	S
1414002032	Clinical Trials	2	2	3	S
1414002033	Nanomedicine and Nanotechnology	2	2	3	S
1414002034	Genetic Basis of Drug Metabolism	2	2	3	S
1414002035	Tissue Engineering	2	2	3	S
1414002036	Medical Imaging	2	2	3	S
1414002037	Protein Structure and Function	2	2	3	S
1414002038	Biosensors	2	2	3	S
1414002039	Transgenic Animals	2	2	3	S
1414002040	Protein Modelling	2	2	3	S
1414002041	Clinical Genetics	2	2	3	S
1414002042	Career Orientation	2	2	3	S
1414002043	Advances in Molecular Genetics	2	2	3	S
1414002044	Introduction to Bioinformatics	2	2	3	S
1414002045	Genetic Engineering	2	0	2	S
1414002046	Population Genetics	2	2	3	S
1414002047	Biodiversity and Evolution	2	2	3	S
1414002049	RNA World	2	2	3	S

Not: Üniversite seçmeli ders havuzu doğal ektidir.