

## DERS PROGRAMI

YEAR ONE															
1st Term							2nd Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MBG101	General Biology I*	3	0	2	4	7		MBG102	General Biology II*	3	0	2	4	7	
MATH101	Calculus I*	3	2	0	4	6		MBG108	Introduction to Programming*	1	0	2	2	3	
PHYS101	Physics I*	3	0	2	4	6		MATH102	Calculus II*	3	2	0	4	6	
CHEM101	General Chemistry I*	3	0	2	4	6		PHYS102	Physics II*	3	0	2	4	6	
RCUL103	University Culture I*	0	2	0	1	4		CHEM102	General Chemistry II*	3	0	2	4	6	
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5		RCUL104	University Culture II*	0	2	0	1	4	
<b>Total Credits</b>		<b>15</b>	<b>4</b>	<b>6</b>	<b>20</b>	<b>34</b>		<b>Total Credits</b>		<b>13</b>	<b>4</b>	<b>8</b>	<b>19</b>	<b>32</b>	

YEAR TWO															
3rd Term							4th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MBG209	Microbiology*	3	0	2	4	6		MBG204	Introduction to Bioinformatics*	2	2	0	3	5	
MBG211	Genetics*	3	0	2	4	7		MBG210	Physiology*	3	0	2	4	6	
MBGXXX	Departmental Elective I	3	0	0	3	5		MBG212	Molecular Genetics	3	0	0	3	4	
TURK103	Turkish Language I	2	0	0	2	2		CHEM104	Organic Chemistry*	3	0	2	4	6	MBG 211
ATA103	Principles of Atatürk and History of Turkish Revolution I	2	0	0	2	2		TURK104	Turkish Language II	2	0	0	2	2	
ENG103	English I	2	0	0	2	2		ATA104	Principles of Atatürk and History of Turkish Revolution II	2	0	0	2	2	
RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3		ENG104	English II	2	0	0	2	2	
<b>Total Credits</b>		<b>17</b>	<b>0</b>	<b>4</b>	<b>19</b>	<b>27</b>		<b>Total Credits</b>		<b>17</b>	<b>2</b>	<b>4</b>	<b>20</b>	<b>27</b>	

YEAR THREE															
5th Term							6th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MBG309	Biochemistry I*	3	0	2	4	7	CHEM 104	MBG304	Recombinant DNA Technology*	3	2	0	4	7	MBG 212
MBG325	Biotechnology	3	0	0	3	4	MBG 212	MBG310	Biochemistry II*	3	0	2	4	7	CHEM 104
MBG331	Current Developments in Molecular Biology*	0	2	0	1	1		MBG314	Molecular Cell Biology*	3	0	2	4	7	
MBGXXX	Departmental Elective II	3	0	0	3	5		MBG384	Summer Practice**	0	0	0	0	5	
XXXXXX	Departmental Elective III	3	0	0	3	5		MBGXXX	Departmental Elective IV	3	0	0	3	5	
XXXXXX	Social Elective I	3	0	0	3	5		<b>Total Credits</b>		<b>12</b>	<b>2</b>	<b>4</b>	<b>15</b>	<b>31</b>	
XXXXXX	Social Elective II	3	0	0	3	5									
<b>Total Credits</b>		<b>18</b>	<b>2</b>	<b>2</b>	<b>20</b>	<b>32</b>									

YEAR FOUR															
7th Term							8th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MBG405	Immunology	2	0	0	2	3		MBG408	Bioethics	2	0	0	2	3	
MBG493	Graduation Project*	0	0	6	3	5		MBG496	Graduation Thesis*	0	0	6	3	10	MBG 493
MBGXXX	Departmental Elective V	3	0	0	3	5		MBGXXX	Departmental Elective VII	3	0	0	3	5	
XXXXXX	Departmental Elective VI	3	0	0	3	5		MBGXXX	Departmental Elective VIII	3	0	0	3	5	
XXXXXX	Field Elective I	3	0	0	3	5		XXXXXX	Field Elective II	3	0	0	3	5	
XXXXXX	Social Elective III	3	0	0	3	5		OHS404	Occupational Health and Safety	4	0	0	4	4	
<b>Total Credits</b>		<b>14</b>	<b>0</b>	<b>6</b>	<b>17</b>	<b>28</b>		<b>Total Credits</b>		<b>15</b>	<b>0</b>	<b>6</b>	<b>18</b>	<b>32</b>	

2024-2025	Total Course Credits for Graduation	148
	Total Course ECTS for Graduation	243
	Total Elective Courses ECTS	65
	Elective Course Ratio	27%

\* These courses are under the Applied Course status.  
\*\* These courses are under the Internship Course status.

DEPARTMENTAL ELECTIVES						
Code	Course Name	T	P	L	C	ECTS
Field : Biotechnology						
Departmental Electives With Project (3rd Year & 4th Year)						
MBG318	Microbial Metabolism	3	0	0	3	5
MBG321	Plant Genetics and Biotechnology	3	0	0	3	5
MBG441	Advanced Methods in Molecular Biology	3	0	0	3	5
MBG427	Biochemical Ecology	3	0	0	3	5
Departmental Electives (4th Year)						
MBG415	Industrial Microbiology	3	0	0	3	5
MBG440	Forensic Biology	3	0	0	3	5
MBG422	Protein Design	3	0	0	3	5
MBG424	Applied Microbiology	3	0	0	3	5
Field : Cell Biology						
Departmental Electives With Project (3rd Year & 4th Year)						
MBG313	Cancer Molecular Biology	3	0	0	3	5
MBG341	Introduction to Toxicology	3	0	0	3	5
MBG343	Genetic Disorders	3	0	0	3	5
MBG342	Stem Cell Technologies	3	0	0	3	5
Departmental Electives (4th Year)						
MBG435	Neurochemistry	3	0	0	3	5
MBG442	Nutritional Biochemistry	3	0	0	3	5
Field : Genetics						
Departmental Electives With Project (3rd Year & 4th Year)						
MBG316	Genes, Environment and Behavior	3	0	0	3	5
MBG319	Functional Genomics and Transcriptomics	3	0	0	3	5
MBG330	Epigenetics	3	0	0	3	5
MBG333	Molecular Evolution	3	0	0	3	5
MBG343	Genetic Disorders	3	0	0	3	5
Departmental Electives (4th Year)						
MBG418	Pharmacogenetics	3	0	0	3	5
MBG419	Sports and Performance Genetics	3	0	0	3	5
Field : Neurobiology						
Departmental Electives With Project (3rd Year & 4th Year)						
MBG307	Neurobiology	3	0	0	3	5
MBG317	Memory	3	0	0	3	5
MBG323	Special Topics in Neuroscience	3	0	0	3	5
MBG326	Neurodevelopment	3	0	0	3	5
Departmental Electives (4th Year)						
MBG411	Animal Behavior	3	0	0	3	5
MBG417	Neurophysics	3	0	0	3	5
MBG435	Neurochemistry	3	0	0	3	5
Departmental Elective Courses (2nd Year)						
Code	Course Name	T	P	L	C	ECTS
MBG205	Plant Biology	3	0	0	3	5
MBG340	Human Anatomy	3	0	0	3	5
MBG203	Biostatistics	3	0	0	3	5
MBG213	Histology and Embryology	3	0	0	3	5

## Elective Courses Pool

Social Elective Courses (Foreign Languages)															
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
ESP123	Spanish I	3	0	0	3	5		ESP124	Spanish II	3	0	0	3	5	ESP123
CHN123	Chinese I	3	0	0	3	5		CHN124	Chinese II	3	0	0	3	5	CHN123
ARB123	Arabic I	3	0	0	3	5		ARB124	Arabic II	3	0	0	3	5	ARB123
RSN123	Russian I	3	0	0	3	5		RSN124	Russian II	3	0	0	3	5	RSN123
FRN123	French I	3	0	0	3	5		FRN124	French II	3	0	0	3	5	FRN123
GER123	German I	3	0	0	3	5		GER124	German II	3	0	0	3	5	GER123
JAP123	Japanese I	3	0	0	3	5		JAP124	Japanese II	3	0	0	3	5	JAP123
ITA123	Italian I	3	0	0	3	5		ITA124	Italian II	3	0	0	3	5	ITA123

Field Elective Courses							
Code	Course Name	T	P	L	C	ECTS	Prerequisite
MDB402	Industrial Microbiology	3	0	0	3	5	
MDB403	Problems and Progress in Biomedical Science	3	0	0	3	5	
MDB301	Ecology and Sustainability	3	0	0	3	5	

For Field Elective courses, any departmental elective course (in English) having appropriate credits from other departments of Faculty of Engineering and Natural Sciences can be elected.

## Social Elective Courses

For Social Elective courses, any course (in English) having appropriate credits from other faculties can be elected.