

İZMİR INSTITUTE OF TECHNOLOGY
DEPARTMENT of MOLECULAR BIOLOGY AND GENETICS
UNDERGRADUATE CURRICULUM

FIRST YEAR

First Semester				Hours	Credit	Prereq / Coreq
MBG	101	Biology I		(3+0)	3	
MBG	111	Biology Lab I		(0+4)	2	Coreq MBG 101
CHEM	101	General Chemistry I		(4+0)	4	
CHEM	131	General Chemistry Lab I		(0+4)	2	Coreq CHEM 101
PHYS	101	General Physics I		(3+2)	4	
PHYS	111	General Physics Lab I		(0+2)	1	Coreq PHYS 101
MATH	141	Basic Calculus I		(3+2)	4	
ENG	101	Development of Reading and Writing Skills I		(3+0)	3	
Total Hours/Credits				(16+14)	23	

Second Semester				Hours	Credit	Prereq / Coreq
MBG	102	Biology II		(3+0)	3	
MBG	112	Biology Lab II		(0+4)	2	Coreq MBG 102
CHEM	102	General Chemistry II		(4+0)	4	
CHEM	132	General Chemistry Lab II		(0+4)	2	Coreq CHEM 102
PHYS	102	General Physics II		(3+2)	4	
PHYS	112	General Physics Lab II		(0+2)	1	Coreq PHYS 102
MATH	142	Basic Calculus II		(3+2)	4	
ENG	102	Development of Reading and Writing Skills II		(3+0)	3	
Total Hours/Credits				(16+14)	23	

SECOND YEAR

Third Semester				Hours	Credit	Prereq / Coreq
MBG	201	Cell Biology I		(3+0)	3	
MBG	211	Cell Biology Lab I		(0+4)	2	Coreq MBG 201
MBG	203	Genetics		(3+0)	3	
MBG	213	Genetics Lab		(0+4)	2	Coreq MBG 203
CHEM	203	Organic Chemistry I		(3+2)	4	Prereq CHEM 101,102
MBG	205	Biostatistics		(2+2)	3	
TURK	201	Turkish Language I		(2+0)	NC	
HIST	201	Principles of Kemal Atatürk I		(2+0)	NC	
		Non-technical Elective		(3+0)	3	
Total Hours/Credits				(18+12)	20	

Fourth Semester				Hours	Credit	Prereq / Coreq
MBG	202	Molecular Biology I		(3+0)	3	
MBG	212	Molecular Biology Lab I		(0+4)	2	Coreq MBG 202
MBG	204	Microbiology		(3+0)	3	
MBG	214	Microbiology Lab		(0+4)	2	Coreq MBG 204

CHEM	204	Organic Chemistry II	(3+2)	4	Prereq CHEM 203
CS	102	Basic Computer Science and Programming	(2+2)	3	
TURK	202	Turkish Language II	(2+0)	NC	
HIST	202	Principles of Kemal Atatürk II	(2+0)	NC	
		Non-technical Elective	(3+0)	3	
		Total Hours/Credits	(18+12)	20	

THIRD YEAR

Fifth Semester		Hours	Credit	Prereq / Coreq	
MBG	301	Biochemistry I	(3+0)	3	
MBG	311	Biochemistry Lab I	(0+4)	2	Coreq MBG 301
MBG	303	Molecular Genetics of Prokaryotes	(3+0)	3	
MBG	305	Applied Bioinformatics	(2+2)	3	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Total Hours/Credits	(14+6)	17	

Sixth Semester		Hours	Credit	Prereq / Coreq	
MBG	302	Biochemistry II	(3+0)	3	
MBG	304	Molecular Genetics of Eukaryotes	(3+0)	3	
MBG	390	Summer Practice	(6 wks)	NC	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Total Hours/Credits	(15+0)	15	

FOURTH YEAR

Seventh Semester		Hours	Credit	Prereq / Coreq	
MBG	403	Developmental Biology	(3+0)	3	
MBG	407	Signal Transduction	(3+0)	3	
MBG	390	Summer Practice	(6 wks)	NC	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Total Hours/Credits	(15+0)	15	

Eighth Semester		Hours	Credit	Prereq / Coreq	
MBG	402	Seminars in Molecular Biology and Genetics	(0+2)	1	
MBG	404	Computational Biology	(2+2)	3	
MBG	408	Bioethics	(2+0)	2	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Technical Elective	(3+0)	3	
		Total Hours/Credits	(13+4)	15	

TOTAL CREDITS TO GRADUATE

148