

ISTINYE UNIVERSITY
FACULTY OF ARTS AND SCIENCES
DEPARTMENT OF MOLECULAR BIOLOGY AND GENETICS

1 st Semester					2 nd Semester						
C. Code	Course	T	P	ECTS	Language of Instruction	C. Code	Course	T	P	ECTS	Language of Instruction
	Professional English I	4	0	4	EN		Professional English II	4	0	4	EN
	Differential and Integral Calculus	2	2	6	EN		General Biology II	3	2	8	EN
	General Biology I	3	2	8	EN		General Physics	3	0	5	EN
	General Chemistry	2	1	4	EN		Manifest of Istinye II	0	2	1	EN
	Ataturk's Principles and History of Turkish Revolution I	2	0	2	EN		History of Molecular Biology	2	0	4	EN
	Turkish Language I	2	0	2	EN		Turkish Language II	2	0	2	EN
	Introduction to Molecular Biology and Genetics Program	2	0	3	EN		Ataturk's Principles and History of Turkish Revolution II	2	0	2	EN
	Manifest of Istinye I	0	2	1	EN		Linear Algebra	3	0	4	EN
	Total	17	2	30			Total	19	4	30	

3 rd Semester					4 th Semester						
C. Code	Course	T	P	ECTS	Language of Instruction	C. Code	Course	T	P	ECTS	Language of Instruction
	Academic English I	4	0	4	EN		Academic English II	4	0	4	EN
	Organic Chemistry I	2	0	4	EN		Organic Chemistry II	2	0	4	EN
	Computational Thinking	3	2	7	EN		Human Genetics	2	2	5	EN
	Basic Genetics	2	2	4	EN		Microbiology	2	2	5	EN
	Cell Biology	3	2	7	EN		Cytogenetics	2	2	5	EN
	Manifest of Istinye III	0	2	1	EN		Manifest of Istinye IV	0	2	1	EN
	Non-Departmental Elective Courses	3	0	4	EN		Departmental Elective Courses	3	0	5	EN
	Total	17	8	31			Total	15	8	29	

5 th Semester					6 th Semester						
C. Code	Course	T	P	ECTS	Language of Instruction	C. Code	Course	T	P	ECTS	Language of Instruction
	Biochemistry I	3	3	8	EN		Biochemistry II	3	3	8	EN
	Biophysics	3	0	4	EN		Molecular Evolution	3	0	5	EN
	Molecular Genetics	3	3	4	EN		Molecular Biology of the Cell II	3	3	8	EN
	Human Physiology	3	0	4	EN		Departmental Elective Courses	3	0	5	EN
	Molecular Biology of the Cell I	3	0	5	EN		Non-Departmental Elective Courses	3	0	4	EN
	Departmental Elective Courses	3	0	5	EN						
	Total	18	6	30			Total	15	6	30	

7 th Semester					8 th Semester						
C. Code	Course	T	P	ECTS	Language of Instruction	C. Code	Course	T	P	ECTS	Language of Instruction
	Scientific Research Methods	2	0	5	EN		Graduation Project	2	8	13	EN
	Biostatistics and Bioinformatics	3	0	6	EN		Business Law, Occupational Health and Safety	2	0	2	EN
	Current Techniques in Molecular Biology	3	3	9	EN		Technical Elective Course	2	0	5	EN
	Departmental Elective Courses	3	0	5	EN		Departmental Elective Courses	3	0	5	EN
	Departmental Elective Courses	3	0	5	EN		Departmental Elective Courses	3	0	5	EN
	Total	14	3	30			Total	12	8	30	

Non-Departmental Elective Courses					
C. Code	Course	T	P	ECTS	Language of Instruction
	Foreign Language	3	0	4	EN
	Entrepreneurship	3	0	4	EN
	Introduction to psychology	3	0	4	EN
	Introduction to sociology	3	0	4	EN
	Creative Writing	3	0	4	EN
	Written & Oral Communication	3	0	4	EN
	Critical Thinking	3	0	4	EN

Departmental Elective Courses					
C. Code	Course	T	P	ECTS	Instruction
	Microorganism Genetics	3	0	5	
	Plant Molecular Biology	2	0	5	
	Modeling of Biological Systems	3	0	5	EN
	Enzymology	3	0	5	EN
	Developmental Biology	3	0	5	EN
	Immunogenetics	3	0	5	EN
	Plant Tissue Culture	2	2	5	EN
	Cancer Biology	3	0	5	EN
	Introduction to Stem Cells	3	0	5	EN
	Neurobiology	3	0	5	EN
	Genetic Engineering and Biotechnology	3	0	5	EN
	Animal tissue culture	3	0	5	EN
	Genetics of Aging	3	0	5	EN
	Molecular Biology of Diseases	2	0	5	EN

Technical Elective Courses					
C. Code	Course	T	P	ECTS	Language of Instruction
	Anatomy	3	0	5	EN
	Science and Ethics	3	0	5	EN
	Pharmacogenetics	3	0	5	EN
	Basic Principles of Metabolism	3	0	5	EN
	Pathology	3	0	5	EN
	Introduction to Programming - Python	3	0	5	EN