ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING DEPARTMENT OF GENETICS AND BIOENGINEERING GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

I. YEAR

							I. SEM	ESTER							
COURSE CODE	COURSE NAME	CO	URSE HO	OUR	LOCAL	ECTS	COURSE	TEACHING	SIDE CONDITION	SIDE CONDITION	PRECONDITI	PRECONDITI	GROUP	GROUP COURSE	DESCRIPTIO
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
TDB 101	Turkish Language I	2	0	0	2	2	C	Turkish	N	=	N	-	N	-	-
GBM 101	Biology I	3	0	0	7	7	C	English	N	-	N	-	N	-	-
GBM 101L	Biology I Lab	0	0	2	2	2	С	English	N	-	N	-	N	-	-
GBM 103	Physics I	3	0	1	5	5	C	English	N	=	N	-	N	-	=
GBM 105	Mathematics I	4	0	0	5	5	C	English	N	-	N	-	N	-	-
GBM 107	Chemistry	3	0	0	4	4	С	English	N	-	N	-	N	-	-
GBM 107L	Chemistry Lab	0	0	2	1	1	C	English	N	=	N	-	N	-	=
GBM 109	Introduction to Computer and Info. Systems	1	1	0	2	2	С	English	N	-	N	-	N	-	-
GBM 111	Engineering Ethics	1	0	0	2	2	С	English	N	-	N	-	N	-	=
	<u>TOTAL</u>	<u>17</u>	<u>1</u>	<u>5</u>	<u>30</u>	<u>30</u>									

							I. Y]	EAR							
							II. SEN	IESTER							
COURSE CODE	COURSE NAME COURSE HOUR LOCAL T D L CREDIT CREDIT COURSE HOUR LOCAL TYPE LANGUAGE COURSE COURSE CONDITION														
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
TDB 102	Turkish Language II	2	0	0	2	2	C	Turkish	N	-	N	-	N	-	-
GBM 102	Introduction to Scientific Programming	2	2	0	4	4	С	English	N	-	N	-	N	-	-
GBM 104	Int. to Genetics and Bioengineering	2	0	0	3	3	С	English	N	-	N	-	N	-	-
GBM 106	Biology II	3	0	0	7	7	С	English	N	-	N	-	N	-	-
GBM 106L	Biology II Lab	0	0	2	2	2	С	English	N	-	N	-	N	-	-
GBM 108	Mathematics II	4	0	0	5	5	С	English	N	-	N	-	N	-	-
GBM 110	Physics II	3	0	1	5	5	С	English	N	-	N	-	N	-	-

Müfredat Yayınlanma Tarihi: Senato Kararı Tarihi:

Sayfa: 1 / 10

EK 2: DETAYLI MÜFREDAT DERS PLANI-EN ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING DEPARTMENT OF GENETICS AND BIOENGINEERING GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.)

SEC 102	ELECTIVE COURSE I (OUT OF AREA)*	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
	TOTAL	<u>18</u>	<u>2</u>	<u>3</u>	<u>30</u>	<u>30</u>									

Müfredat Yayınlanma Tarihi: Senato Kararı Tarihi:

ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING DEPARTMENT OF GENETICS AND BIOENGINEERING GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

II. YEAR

III. SEMESTER

							III. SEN	ILSTER							
COURSE CODE	COURSE NAME	CO	URSE HO	OUR	LOCAL	ECTS	COURSE		SIDE CONDITION	SIDE CONDITION	PRECONDITI		GROUP	GROUP COURSE	DESCRIPTIO
		T	P	L	CREDIT		TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
ATA 101	Principles of Ataturk and Turkish Revolution History I	2	0	0	2	2	C	Turkish	N	-	N	-	N	-	-
GBM 203	Cell Biology	3	0	0	5	5	C	English	N	-	N	-	N	-	-
GBM 203L	Cell Biology Lab	0	0	2	2	2	С	English	N	-	N	-	N	-	-
GBM 205	Genetics	3	0	0	4	4	С	English	N	-	N	-	N	-	-
GBM 207	Differantial Equations	4	0	0	5	5	С	English	N	-	N	-	N	-	-
GBM 209	Thermodynamics	3	0	0	5	5	С	English	N	-	N	-	N	-	-
GBM 211	Organic Chemistry	2	0	0	5	5	С	English	N	-	N	-	N	-	-
SEC 201	ELECTIVE COURSE II (OUT OF AREA)*	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
	TOTAL	<u>19</u>	<u>0</u>	<u>2</u>	<u>30</u>	<u>30</u>									

							II. Y	EAR							e E
	IV. SEMESTER														
COURSE CODE	COURSE NAME	CO	URSE HO	OUR	LOCAL	ECTS	COURSE	TEACHING	SIDE CONDITION	SIDE CONDITION	PRECONDITI	PRECONDITI	GROUP	GROUP COURSE	DESCRIPTIO
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
ATA 102	Principles of Ataturk and Turkish Revolution History II	2	0	0	2	2	С	Turkish	N	-	N	-	N	-	=
GBM 202	Biomaterials	3	0	0	3	3	С	English	N	-	N	-	N	-	=
GBM 204	Molecular Biology and Genetics	3	0	0	4	4	С	English	N	-	N	-	N	-	-
GBM 206	Microbiology	2	0	2	5	5	С	English	N	-	N	-	N	-	-
GBM 208	Heat and Mass Transfer	3	0	0	4	4	С	English	N	-	N	-	N	-	-
GBM 210	Prob. And Statistics	2	2	0	4	4	С	English	N	-	N	-	N	-	-
GBM 212	Biochemistry I	3	0	0	4	4	С	English	N	-	N	-	N	-	-
SEC 202	Elective Course III (Out of Area)	3	0	0	4	4	CE	English	N	-	N	-	Y	-	1

Müfredat Yayınlanma Tarihi: Senato Kararı Tarihi:

ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING DEPARTMENT OF GENETICS AND BIOENGINEERING GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

SEC 202.1	Report Writing and Presentation Skills														
SEC 202.2	Trends in Food Science	3	0	0	4	4	E	English	N	-	N	-	Y	SEC 202	2
SEC 202.3	Waste Management and Sustainability														
	<u>TOTAL</u>	<u>24</u>	<u>2</u>	<u>2</u>	<u>34</u>	<u>30</u>									

							III. Y	EAR							
							V. SEM	IESTER							
COURSE CODE	COURSE NAME	CO	URSE HO	OUR	LOCAL	ECTS	COURSE	TEACHING	SIDE CONDITION	SIDE CONDITION	PRECONDITI	PRECONDITI	GROUP	GROUP COURSE	DESCRIPTIO
COOKSE CODE	COURSE NAME	T	P	L	KREDİ	ECIS	TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
GBM 301	Bioreactors	3	0	0	4	4	C	English	N	=	N	-	N	-	A
GBM 303	Biotechnology	3	0	0	4	4	С	English	N	-	N	-	N	-	-
GBM 305	Genetic Engineering I	3	0	0	6	6	C	English	N	=	N	-	N	-	-
GBM 305L	Genetic Engineering I Lab	0	0	4	2	2	С	English	N	-	N	-	N	-	-
GBM 307	Biochemistry II	3	0	0	4	4	С	English	N	-	N	-	N	-	-
SEC 301	Elective Course IV (Technical Course)	3	0	0	5	5	CE	English	N	-	N	-	Y	-	2
SEC 301.1	Cytogenetics														
SEC 301.2	Cancer Biology														
SEC 301.3	Fluid Mechanics	3	0	0	5	5	E	English	N	_	N	_	Y	SEC 301	_
SEC 301.4	Human Genetics	5	U	0		3	E	Engusn	TV.		TV.	-	1	SEC 301	_
SEC 301.5	Functional Foods														
SEC 301.6	Epigenetics														
	<u>TOTAL</u>	<u>18</u>	0	4	<u>30</u>	<u>30</u>									

					III. Y	EAR							
					VI. SEM	MESTER							
COURSE CODE	COURSE NAME	COURSE HOUR	LOCAL	FCTS	COURSE	TEACHING	SIDE	SIDE	PRECONDITI	PRECONDITI	GROUP	GROUP	DESCRIPTIO

ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING

DEPARTMENT OF GENETICS AND BIOENGINEERING

GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

COURSE CODE	COURSE NAIVIE	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CODE	ON STATUS	ON CODE	STATUS	CODE	N CODE
GBM 302	Genetic Engineering II	3	0	0	6	6	C	English	N	-	N	-	N	-	-
GBM 302L	Genetic Engineering II Lab	0	0	4	3	3	С	English	N	-	N	-	N	-	-
GBM 304	Separation and Purification Processes	2	0	0	2	2	С	English	N	-	N	-	N	-	-
GBM 306	Molecular Cell Biology	3	0	0	5	5	С	English	N	-	N	-	N	-	-
GBM 308	Internship	0	0	0	0	0	С	English	N	-	N	-	N	-	A
SEC 302	Elective Course V (Technical Course)	3	0	0	5	5	CE	English	N	-	N	-	Y	-	2
SEC 302.1	Microbial and Viral Genetics														
SEC 302.2	Neurobiology														
SEC 302.3	Developmental Biology	3	0	0	5	5	Ε	English	N		N		Y	SEC 302	
SEC 302.4	Nutrition in Health and Disease	3	0	0	3	3	E	English	IV	-	IV	-	I	SEC 302	-
SEC 302.5	Toxicology														
SEC 302.6	Immunology														
SEC 304	Elective Course VI (Out of Area)	3	0	0	4	4	CE	English	N	-	N	-	Y	-	1
SEC 304.1	Scientific Research Methods														
SEC 304.2	Technology and R&D	3	0	0	4	4	E	E. aliah	Н		Н		Y	SEC 304	
SEC 304.3	Business Planning	3	U	0	4	4	E	English	П	-	П	-	I I	SEC 304	-
SEC 304.4	Entrepreneurship														
	TOTAL	<u>17</u>	0	4	<u>30</u>	<u>30</u>									

							IV. Y	EAR							
							VII. SEN	MESTER							
COURSE CODE	COURSE NAME	COI	URSE HO	OUR	LOCAL	ECTS	COURSE	TEACHING	SIDE CONDITION	SIDE CONDITION	PRECONDITI	PRECONDITI	GROUP	GROUP COURSE	DESCRIPTIO
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CONDITION	ON STATUS	ON CODE	STATUS	CODE	N CODE

ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING

DEPARTMENT OF GENETICS AND BIOENGINEERING

GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

GBM 401	Genetics and Bioengineering Design	0	2	0	4	4	С	English	N	-	Y	-	N	-	4
GBM 403	Bioinformatics	3	0	0	7	7	С	English	N	=	N	-	N	-	1
ISG 401	Occup. Health and Safety I	2	0	0	2	2	С	English	N	-	N	-	N	-	-
SEC 401	Elective Course VII (Out of Area)*	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
SEC 403	Elective Course VIII (Design Course)	3	0	0	5	5	CE	English	N	-	N	=	Y	-	3
SEC 403.1	Cell Culture Techniques														1
SEC 403.2	Pharmacogenetics														I
SEC 403.3	Industrial Biotechnology	2	0	0	5	5	Е	English	N		N		E	SEC 403	İ
SEC 403.4	Clinical Biochemistry	3		0	3	3	E	Engusn	IV	-	IV.	-	E	SEC 403	-
SEC 403.5	Genomics and Proteomics														I
SEC 403.6	Plant Biotechnology														I
	TOTAL	<u>16</u>	<u>2</u>	<u>0</u>	<u>30</u>	<u>30</u>									

	IV. YEAR														
VIII. SEMESTER															
COURSE CODE		COURSE HOUR		LOCAL	ECTS	COURSE	E TEACHING	SIDE CONDITION	SIDE	PRECONDITI	PRECONDITI	GROUP	GROUP	DESCRIPTIO	
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECIS	TYPE	LANGUAGE	STATUS	CONDITION CODE	ON STATUS	ON CODE	STATUS	COURSE CODE	N CODE
GBM 402	Graduation Project	0	6	0	8	8	С	English	N	-	Y	GBM 401	N	-	5
GBM 404	Nanotechnology	3	0	0	6	6	С	English	N	=	N	-	N	-	-
ISG 402	Occup. Health and Safety II	1	0	0	1	1	С	English	N	-	N	-	N	-	=
SEC 402	Elective Course IX (Design Course)	3	0	0	5	5	CE	English	N	-	N	-	Y	-	3
SEC 402.1	Molecular Signaling Pathways and Cancer														
SEC 402.2	Biosensors												Y	SEC 402	-
SEC 402.3	Gene Therapy														
SEC 402.4	Molecular Pharmacology	3	0	0	5	5	E	English	N	-	N	-			
SEC 402.5	Stem Cells														
SEC 402.6	Nutraceuticals														
SEC 402.7	Drug Delivery Systems														

Müfredat Yayınlanma Tarihi: Senato Kararı Tarihi:

ALANYA ALAADDIN KEYKUBAT UNIVERSITY RAFET KAYIŞ FACULTY OF ENGINEERING DEPARTMENT OF GENETICS AND BIOENGINEERING GENETICS AND BIOENGINEERING (%100 ENGLISH) BACHELOR (D.E.) 2020/2021 DETAILED EDUCATION TEACHING CURRICULUM

<u>TOTAL</u> <u>13 6 0 30 30</u>

*Abbreviations: T: Theoretical, P: Practice, L: Laboratory, C: Compulsory, E: Elective, CE: Compulsory Elective, Y: Yes, N: No

DESCRIPTIONS

- 1 Only 1 (one) course from the related group must be selected.
- 2 Only 2 (two) courses from the related group must be selected.
- 3 Only 3 (three) courses from the related group must be selected.
- 4 In order to take this course (GBM 401 Genetics and Bioengineering Design), the student must have succeded at least one course from the sixth semester.
- 5 In order to take this course (GBM 402 Graduation Project), the student must have succeeded in GBM 401 Genetics and Bioengineering Design with a grade of CC or better.

A Students must complete their workplace training (internships) provided that they are at least 20 working days from the third grade. Those who complete their workplace education are considered successful from this course. The workplace education course does not participate in the grade point average.

* Appropriate elective course list has been enclosed.

Müfredat Yayınlanma Tarihi: Senato Kararı Tarihi:

Sayfa: 7 / 10

		COURSE HOUR			LOCAL DO		COURSE	G	SIDE SIDE		PRECOND		GROUP	GROUP	DESCRIPT
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECTS		LANGUAG	CONDITIO N STATUS		ITION STATUS	ITION CODE	STATUS	COURSE CODE	ION CODE
SEC 102	ELECTIVE COURSE I (OUT OF AREA)	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
KRP 101	Carrier Planning														
SEC 102.1	History of Art														
SEC 102.2	History and Philosophy of Science								1						
SEC 102.3	Disaster Awareness														
SEC 102.4	Eloquent Speech														
SEC 102.5	Basic First Aid and EMAKErgency														
SEC 102.6	Archery														
SEC 102.7	Boxing, Karate and Taekwondo														
SEC 102.8	Football														
SEC 102.9	Volleyball														
SEC 102.10	Basketball														
SEC 102.11	Tennis														
SEC 102.12	Table Tennis													SEC 102	
SEC 102.13	Folk Dances														-
SEC 102.14	Music Culture														
SEC 102.15	Arts&Painting														
SEC 102.16	Theatre and Cinema														
SEC 102.17	Healthy Living														
SEC 102.18	Nutrition	2	0	0	2	2	E	English	N	-	N	-	Y		
SEC 102.19	Media Literacy														
SEC 102.20	Mathematical Esthetics														
SEC 102.21	Industrial Design														
SEC 102.22	Basic Photography														
SEC 102.23	Surfing														
SEC 102.24	Japanese I														
SEC 102.25	Japanese II														
SEC 102.26	Mythology														
SEC 102.27	Ancient City														
SEC 102.28	Sociology														
SEC 102.29	Philosophy														
SEC 102.30	Ancient DNA: History of the Past														
SEC 102.31	Genetic Heritage														
SEC 102.32	Modern Genetic Applications: Gene Cloning														
SEC 102.33	Food and Food Culture														
SEC 102.34	Diet and Effects														
SEC 102.35	Traditional Foods													1	
SEC 102.36	Organic Agriculte					1									

		C	OURSE HOU	JR	LOCAL		COURSE	G	SIDE		PRECOND		GROUP	GROUP	DESCRIPT
COURSE CODE	COURSE NAME	T	P	L	CREDIT	ECTS		LANGUAG	CONDITIO N STATUS	CONDITIO N CODE	ITION STATUS	ITION CODE	STATUS	COURSE CODE	ION CODE
SEC 201	ELECTIVE COURSE I (OUT OF AREA)	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
SEC 201.1	History of Art														
SEC 201.2	History and Philosophy of Science														
SEC 201.3	Disaster Awareness														
SEC 201.4	Eloquent Speech														
SEC 201.5	Basic First Aid and EMAKErgency														
SEC 201.6	Archery														
SEC 201.7	Boxing, Karate and Taekwondo														
SEC 201.8	Football														
SEC 201.9	Volleyball														
SEC 201.10	Basketball														
SEC 201.11	Tennis														
SEC 201.12	Table Tennis														
SEC 201.13	Folk Dances														
SEC 201.14	Music Culture														
SEC 201.15	Arts&Painting														
SEC 201.16	Theatre and Cinema														
SEC 201.17	Healthy Living														
SEC 201.18	Nutrition														
SEC 201.19	Media Literacy														
SEC 201.20	Mathematical Esthetics														
SEC 201.21	Industrial Design														
SEC 201.22	Basic Photography														
SEC 201.23	Surfing														
SEC 201.24	Japanese I														
SEC 201.25	Japanese II														
SEC 201.26	Mythology														
SEC 201.27	Ancient City														
SEC 201.28	Sociology														
SEC 201.29	Philosophy														
SEC 201.30	Ancient DNA: History of the Past														
SEC 201.31	Genetic Heritage														
SEC 201.32	Modern Genetic Applications: Gene Cloning														
SEC 201.33	Food and Food Culture														
SEC 201.34	Diet and Effects														
SEC 201.35	Traditional Foods														
SEC 201.36	Organic Agriculte														

		C	OURSE HOU	J R	LOCAL		COURSE TYPE	G LANGUAG	SIDE CONDITIO N STATUS	CONDITIO	PRECOND	PRECOND ITION CODE	GROUP STATUS	GROUP COURSE CODE	DESCRIPT ION CODE
COURSE CODE	COURSE NAME	Т	P	L	CREDIT	ECTS					ITION STATUS				
SEC 401	ELECTIVE COURSE I (OUT OF AREA)	2	0	0	2	2	CE	English	N	-	N	-	Y	-	1
SEC 401.1	History of Art														
SEC 401.2	History and Philosophy of Science														
SEC 401.3	Disaster Awareness														
SEC 401.4	Eloquent Speech														
SEC 401.5	Basic First Aid and EMAKErgency														
SEC 401.6	Archery														
SEC 401.7	Boxing, Karate and Taekwondo														
SEC 401.8	Football														
SEC 401.9	Volleyball														
SEC 401.10	Basketball														
SEC 401.11	Tennis														
SEC 401.12	Table Tennis														
SEC 401.13	Folk Dances														
SEC 401.14	Music Culture														
SEC 401.15	Arts&Painting														
SEC 401.16	Theatre and Cinema													SEC 401	-
SEC 401.17	Healthy Living							English	N -	_					
SEC 401.18	Nutrition	2	0	0	0	0	E				N	_	Y		
SEC 401.19	Media Literacy	2	U	U	U	U	E	English		-	1V	-	1		
SEC 401.20	Mathematical Esthetics														
SEC 401.21	Industrial Design														
SEC 401.22	Basic Photography														
SEC 401.23	Surfing														
SEC 401.24	Japanese I														
SEC 401.25	Japanese II														
SEC 401.26	Mythology														
SEC 401.27	Ancient City														
SEC 401.28	Sociology														
SEC 401.29	Philosophy														
SEC 401.30	Ancient DNA: History of the Past														
SEC 401.31	Genetic Heritage														
SEC 401.32	Modern Genetic Applications: Gene Cloning														
SEC 401.33	Food and Food Culture														
SEC 401.34	Diet and Effects							'							
SEC 401.35	Traditional Foods														
SEC 401.36	Organic Agriculte					l									