

2023-2024 AKADEMİK  
YILI / Academic Year

# EĞİTİMDE KALİTE GÜVENCESİ GÜZ DÖNEMİ RAPORU

*QUALITY ASSURANCE IN  
EDUCATION FALL SEMESTER  
REPORT*

**FEN FAKÜLTESİ**  
*FACULTY OF SCIENCES*

**MOLEKÜLER BİYOLOJİ VE GENETİK  
LİSANS PROGRAMI (MBG)**  
*MOLECULAR BIOLOGY AND GENETICS  
UNDERGRADUATE PROGRAM (MBG)*



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**FEN FAKÜLTESİ / FACULTY OF SCIENCES**  
**MOLEKÜLER BİYOLOJİ VE GENETİK LİSANS**  
**PROGRAMI - MBG / MOLECULAR BIOLOGY AND GENETICS**  
**UNDERGRADUATE PROGRAM - MBG**

**1. LİSANS PROGRAMI / UNDERGRADUATE PROGRAM**

**1.1. MÜFREDAT / CURRICULUM**

<b>Birinci Yıl / First Year</b>					
<b>Güz Dönemi / Fall Semester</b>					
<b>Ders Kod / Course Code</b>	<b>Ders Adı / Course Name</b>	<b>Saatler / Hours</b>		<b>Kredi / Credits</b>	
		<b>Ders / Lecture</b>	<b>Lab / Stüdyo / Diğer / Lab / Studio / Others</b>	<b>Bilkent</b>	<b>ECTS</b>
CHEM 101	Kimyanın Temelleri I / <i>Principles of Chemistry I</i>	3	4	4	6.5
ENG 101	İngilizce ve Kompozisyon I / <i>English and Composition I</i>	5	0	3	5
GE 100	Üniversite Hayatına Giriş / <i>Orientation</i>	0	0	1	2
MATH 101	Matematik I / <i>Calculus I</i>	4	0	4	6.5
MBG 101	Biyoloji I / <i>Biology I</i>	3	4	4	6.5
TURK 101	Türkçe I / <i>Turkish I</i>	0	0	2	3.5
<b>Bahar Dönemi / Spring Semester</b>					
<b>Ders Kod / Course Code</b>	<b>Ders Adı / Course Name</b>	<b>Saatler / Hours</b>		<b>Kredi / Credits</b>	
		<b>Ders / Lecture</b>	<b>Lab / Stüdyo / Diğer / Lab / Studio / Others</b>	<b>Bilkent</b>	<b>ECTS</b>
CHEM 102	Kimyanın Temelleri II / <i>Principles of Chemistry II</i>	3	4	4	6.5
ENG 102	İngilizce ve Kompozisyon II / <i>Principles of Chemistry II</i>	5	0	3	5
MATH 102	Matematik II / <i>Calculus II</i>	4	0	4	6.5
MBG 102	Biyoloji II / <i>Biology II</i>	3	4	4	6.5
TURK 102	Türkçe II / <i>Turkish II</i>	0	0	2	3.5

İkinci Yıl / Second Year					
Güz Dönemi / Fall Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
CHEM 233	Organik Kimyanın Temelleri I / Principles of Organic Chemistry I	3	0	3	5
CS 115	Python ile Programlamaya Giriş / Introduction to Programming in Python	3	4	4	6.5
GE 250	Üniversite Etkinlik Programı I / Collegiate Activities Program I	0	0	0	1
HIST 200	Türkiye Tarihi / History of Turkey	3	0	4	6.5
MBG 210	Genetik / Genetics	3	4	4	6.5
PHYS 101	Genel Fizik I / General Physics I	3	3	4	6.5
Bahar Dönemi / Spring Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
GE 251	Üniversite Etkinlik Programı II / Collegiate Activities Program II	0	0	1	2
MATH 262	İstatistik Yöntemleri / Statistical Methodology	3	0	3	5
MBG 223	Moleküler Genetik / Molecular Genetics	3	4	4	6.5
MBG 230	Moleküler ve Hücre Biyolojisinde Deneysel Yaklaşımlar / Experimental Approaches in Molecular and Cellular Biology	3	0	3	5
PHYS 102	Genel Fizik II / General Physics II	3	3	4	6.5
	Temel Sanat Seçmeli Dersi / Arts Core Elective			3	

Üçüncü Yıl / Third Year					
Güz Dönemi / Fall Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
COMD 358	Profesyonel İletişim / Professional Communication	3	0	3	5
HUM 111	Kültürler, Medeniyetler ve Düşünceler I / Cultures Civilizations and Ideas I	3	0	3	5
MBG 291	Yaz Stajı I / Summer Practice I	0	0	0	6
MBG 301	Moleküler Hücre Biyolojisi I / Molecular Biology of the Cell I	3	0	3	5
MBG 311	Biyokimya I / Biochemistry I	3	4	4	6.5
MBG 324	Gen Moleküler Biyolojisi / Molecular Biology of the Gene	3	4	4	6.5
Bahar Dönemi / Spring Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
HUM 112	Kültürler, Medeniyetler ve Düşünceler II / Cultures Civilizations and Ideas II	3	0	3	5
MBG 302	Moleküler Hücre Biyolojisi II / Molecular Biology of the Cell II	3	4	4	6.5
MBG 312	Biyokimya II / Biochemistry II	3	0	3	5
MBG 316	Fizyoloji / Physiology	3	0	3	5
MBG 338	Mikrobiyoloji / <input type="checkbox"/> Microbiology	3	4	4	6.5

Dördüncü Yıl / Fourth Year					
Güz Dönemi / Fall Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
MBG 391	Yaz Stajı II / Summer Practice II	0	0	0	6.5
MBG 416	Bilim ve Etik / Science and Ethics	3	0	3	5
MBG 491	Mezuniyet Projesi I / Senior Project I	0	6	3	5
	Sınırlı Seçmeli Ders / Restricted Elective			3	
	Teknik Seçmeli Ders (2) / Technical Elective (2)			6	
Bahar Dönemi / Spring Semester					
Ders Kod / Course Code	Ders Adı / Course Name	Saatler / Hours		Kredi / Credits	
		Ders / Lecture	Lab / Stüdyo / Diğer / Lab / Studio / Others	Bilkent	ECTS
MBG 418	Genomik / Genomics	3	4	4	6.5
	Teknik Olmayan Seçmeli Ders / Non-Technical Elective			3	
	Sınırlı Seçmeli Ders / Restricted Elective			3	
	Temel Sosyal Bilimler Seçmeli Ders / Social Science Core Elective			3	
	Teknik Seçmeli Ders / Technical Elective			3	

## 2. PROGRAM ÇIKTILARI / PROGRAM OUTCOMES

### 2.1. PROGRAM ÇIKTILARININ LİSTESİ / LIST OF PROGRAM OUTCOMES

- a. Yaşam bilimlerindeki küresel problemlere yaratıcı çözümler bulmak için modern bilgi, düşünme şekli ve araçları kullanır. / *Introduce modern knowledge, thought process, and tools to develop creative solutions for global challenges in life sciences.*
- b. Biyolojik deneyler yapabilir, analiz edebilir ve sonuçlarını yorumlayabilir. / *Able to conduct, analyze, interpret results of biological experiments.*
- c. Bir projede uzman ve disiplinler arası takımların takım üyesi olarak çalışabilir. / *Able to function as a team member of specialized and interdisciplinary teams in a project.*
- d. Yaşam bilimleri araştırmalarında etik ilkeleri uygulayabilir. / *Able to apply ethical principles in life science research.*
- e. Bilimsel, küresel, ekonomik, çevresel ve toplumsal ihtiyaçlar bağlamında araştırma sonuçlarını hem yazılı hem de sözlü formatta çeşitli gruplara aktarabilmek için iletişim becerilerini geliştirir. / *Develop skills to communicate research output in both written and oral formats in the context of scientific, global, economic, environmental, and society needs in order to effectively organize ideas and convey them to various audiences.*
- f. Bilimsel literatürü eleştirel bir şekilde analiz edebilir ve yaşam boyu öğrenmeyi sürdürebilir. / *Able to critically analyze scientific literature and to engage in lifelong learning.*
- g. İlgili hesaplamalı ve biyoinformatik araçlarıyla araştırma yapar. / *Conduct research with relevant computational and bioinformatics tools.*
- h. Derslerin yanı sıra çeşitli ve yaratıcı, sanatsal, kültürel, sportif ve entelektüel faaliyetlere katılarak kampüs hayatından yararlanır. / *Take advantage of the campus life in a diverse and creative manner through artistic, cultural, sportive and intellectual activities outside of coursework.*

## 2.2. PROGRAM ÇIKTILARI - DERSLER MATRİSİ / PROGRAM OUTCOMES - COURSES TABLE

Dersler / Courses	Program Çıktıları / Program Outcomes								Dersler / Courses	Program Çıktıları / Program Outcomes							
	a	b	c	d	e	f	g	h		a	b	c	d	e	f	g	h
CHEM 101	✓	✓							MBG 223	✓	✓	✓					
CHEM 102	✓	✓	✓						MBG 230	✓	✓		✓		✓		
CHEM 233	✓								MBG 291		✓	✓	✓	✓	✓		
COMD 358			✓		✓				MBG 301	✓			✓	✓	✓		
CS 115	✓							✓	MBG 302	✓	✓		✓	✓	✓		
ENG 101					✓				MBG 311	✓	✓						
ENG 102					✓				MBG 312	✓							
GE 100						✓		✓	MBG 316	✓		✓		✓			
GE 250						✓		✓	MBG 324	✓	✓	✓	✓	✓	✓	✓	
GE 251						✓		✓	MBG 338	✓	✓	✓		✓			
HIST 200			✓		✓				MBG 391		✓	✓	✓	✓	✓		
HUM 111					✓	✓			MBG 416				✓	✓			
HUM 112					✓	✓			MBG 418	✓	✓	✓		✓	✓	✓	
MATH 101	✓	✓	✓						MBG 491	✓		✓	✓	✓			
MATH 102	✓	✓	✓						PHYS 101	✓				✓			
MATH 262	✓								PHYS 102	✓				✓			
MBG 101	✓	✓	✓	✓	✓	✓	✓		TURK 101					✓			
MBG 102	✓	✓	✓	✓	✓	✓			TURK 102					✓			
MBG 210	✓	✓	✓	✓													

**Tablo.2.2.** Moleküler Biyoloji ve Genetik Lisans Programı - Program Çıktıları ve Dersler Tablosu / *Table.2.2. Molecular Biology and Genetics Undergraduate Program - Program Outcomes and Courses Table*

### 3. PERFORMANS ÖLÇÜMLERİNDE KULLANILACAK METRİKLER / METRICS TO BE USED IN PERFORMANCE MEASUREMENT

#### 3.1. PERFORMANS ÖLÇÜMLERİNDE KULLANILACAK DEĞERLENDİRME METOTLARI / EVALUATION METHODS USED IN PERFORMANCE MEASUREMENTS

Course Code	Program Outputs	Lab work	Final:Essay/ written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade						
CHEM 101	a	50	50	100	M3	50						
	Program Outputs	Lab work	Final:Essay/ written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade						
	b	50	50	100	M3	50						
Course Code	Program Outputs	Final:Essay/ written	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Quiz	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
CHEM 233	a	40	25	25	2,5	2,5	2,5	2,5	100	M1	20	75
Course Code	Program Outputs	Homeworks	Homeworks	Homeworks	Homeworks	Homeworks	In-class assignments	In-class assignments	In-class assignments	In-class assignments	In-class assignments	Exam
COMD 358	c	5	5	5	5	5	5	5	5	5	5	25
		Project & Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
		25	100	M1	60	70						
	Program Outputs	Homeworks	Homeworks	Homeworks	Homeworks	Homeworks	In-class assignments	In-class assignments	In-class assignments	In-class assignments	In-class assignments	Exam
	e	5	5	5	5	5	5	5	5	5	5	25
		Project & Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
25		100	M1	60	70							



Course Code	Program Outputs	Lab exam	Midterm: Essay/written	Final:Essay/written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
CS 115	a	20	40	40	100	M1	40	75				
	Program Outputs	Lab exam	Midterm: Essay/written	Final:Essay/written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
	g	20	40	40	100	M1	40	75				
Course Code	Program Outputs	Academic Essay 1	Essay	Oral Presentation	Student Led Discussion	Academic Summary and Critical Response Task	Self-progress Reflection Task	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
ENG 101	e	20	25	8	7	10	5	25	100	M1	70	75
Course Code	Program Outputs	Library Skills Task	Academic Essay	Oral Presentation	Research Paper Outline	Research essay	Interviews	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
ENG 102	e	5	20	20	10	30	15	100	M1	70	70	
Course Code	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
GE 100	f	100	100	M1	12	80						
	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
	h	100	100	M1	12	80						
Course Code	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
GE 251	f	100	100	M1	70	70						
	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
	h	100	100	M1	70	70						

Course Code	Program Outputs	Oral presentation	Research essay	Performance	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
HIST 200	c	10	60	30	100	M1	70	75				
	Program Outputs	Oral presentation	Research essay	Performance	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
	e	10	60	30	100	M1	70	75				
Course Code	Program Outputs	Quizzes	Course Project	In-class participation	Final Examination	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
HUM 111	e	30	30	10	30	100	M1	60	75			
	Program Outputs	Quizzes	Course Project	In-class participation	Final Examination	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
	f	30	30	10	30	100	M1	60	75			
Course Code	Program Outputs	Midterm	Midterm	Final	Quiz	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
MATH 101	a	25	25	30	10	10	100	M1	40	50		
	Program Outputs	Midterm	Midterm	Final	Quiz	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	b	25	25	30	10	10	100	M1	40	50		
	Program Outputs	Midterm	Midterm	Final	Quiz	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	c	25	25	30	10	10	100	M1	40	50		
Course Code	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
MBG 101	a	20	20	5	5	30	20	100	M1	50	50	
	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
	b	20	20	5	5	30	20	100	M1	50	50	

Course Code	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
MBG 101	c	20	20	5	5	30	20	100	M1	50	50		
	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	d	20	20	5	5	30	20	100	M1	50	50		
	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	e	20	20	5	5	30	20	100	M1	50	50		
	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	f	20	20	5	5	30	20	100	M1	50	50		
	Program Outputs	Midterm: Essay/written	Midterm: Essay/written	Quiz	Quiz	Final:Open-book	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
g	20	20	5	5	30	20	100	M1	50	50			
Course Code	Program Outputs	Final:Essay/written	Midterm: Essay/written	Midterm: Essay/written	Lab work	Homework	Homework	Homework	Homework	Homework	Total Contribution	Qualification Calculation Method	
MBG 210	a	30	20	20	25	1	1	1	1	1	100	M1	
		(Average) Qualification Grade	Qualification Threshold (%)										
		50	50										
	Program Outputs	Final:Essay/written	Midterm: Essay/written	Midterm: Essay/written	Lab work	Homework	Homework	Homework	Homework	Homework	Total Contribution	Qualification Calculation Method	
	b	30	20	20	25	1	1	1	1	1	100	M1	
		(Average) Qualification Grade	Qualification Threshold (%)										
		50	50										

Course Code	Program Outputs	Final:Essay/ written	Midterm: Essay/written	Midterm: Essay/written	Lab work	Homework	Homework	Homework	Homework	Homework	Total Contribution	Qualification Calculation Method	
MBG 210	c	30	20	20	25	1	1	1	1	1	100	M1	
		(Average) Qualification Grade	Qualification Threshold (%)										
		50	50										
	Program Outputs	Final:Essay/ written	Midterm: Essay/written	Midterm: Essay/written	Lab work	Homework	Homework	Homework	Homework	Homework	Total Contribution	Qualification Calculation Method	
	d	30	20	20	25	1	1	1	1	1	100	M1	
		(Average) Qualification Grade	Qualification Threshold (%)										
50		50											
Course Code	Program Outputs	Midterm: Open-Book	Midterm: Open-Book	Final:Open- book	Quiz	Quiz	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
MBG 301	a	20	20	35	5	5	15	100	M1	50	50		
	Program Outputs	Midterm: Open-Book	Midterm: Open-Book	Final:Open- book	Quiz	Quiz	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	d	20	20	35	5	5	15	100	M1	50	50		
	Program Outputs	Midterm: Open-Book	Midterm: Open-Book	Final:Open- book	Quiz	Quiz	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
	e	20	20	35	5	5	15	100	M1	50	50		
	Program Outputs	Midterm: Open-Book	Midterm: Open-Book	Final:Open- book	Quiz	Quiz	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
f	20	20	35	5	5	15	100	M1	50	50			
Course Code	Program Outputs	Case study	Midterm: Essay/written	Midterm: Essay/written	Final:Essay/ written	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
MBG 311	a	5	25	25	30	15	100	M1	50	50			
	Program Outputs	Case study	Midterm: Essay/written	Midterm: Essay/written	Final:Essay/ written	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
	b	5	25	25	30	15	100	M1	50	50			

Course Code	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
MBG 324	a	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
	b	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
	c	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
	d	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
	e	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
	f	23	27	28	2	1	1	1	1	1	2	2
		Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
		2	2	2	5	100	M1	50	50			
	Program Outputs	Midterm	Midterm	Final	In-class participation	Lab exam	Lab exam	Lab exam	Lab exam	Lab exam	Lab work	Lab work
g	23	27	28	2	1	1	1	1	1	2	2	
	Lab work	Lab work	Lab work	Lab exam	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
	2	2	2	5	100	M1	50	50				

Course Code	Program Outputs	Quiz	Quiz	Quiz	Midterm: Essay/written	Midterm :Essay/written	Presentations	Final:Essay/written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
MBG 416	d	5	5	5	20	20	25	20	100	M1	50	50
	Program Outputs	Quiz	Quiz	Quiz	Midterm: Essay/written	Midterm :Essay/written	Presentations	Final:Essay/written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	e	5	5	5	20	20	25	20	100	M1	50	50
Course Code	Program Outputs	Final:Essay/written	Lab work	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
MBG 491	a	20	50	30	100	M1	20	50				
	Program Outputs	Final:Essay/written	Lab work	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
	c	20	50	30	100	M1	20	50				
	Program Outputs	Final:Essay/written	Lab work	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
	d	20	50	30	100	M1	20	50				
	Program Outputs	Final:Essay/written	Lab work	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
e	20	50	30	100	M1	20	50					
Course Code	Program Outputs	Midterm	Midterm	Quiz	Homework	Final	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
PHYS 101	a	15	20	10	10	25	20	100	M1	50	50	
	Program Outputs	Midterm	Midterm	Quiz	Homework	Final	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
	e	15	20	10	10	25	20	100	M1	50	50	
Course Code	Program Outputs	Blog	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)					
TURK 101	e	70	30	100	M1	70	60					

Course Code	Program Outputs	Blog	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
TURK 102	e	70	30	100	M1	70	60

- **Ölçümlerde Kullanılan Metotlarla İlgili Açıklamalar / Explanations About the Methods Used in Measurements**

Bütün metotlar için sadece dersi geçen öğrencilerin notları kullanılacaktır. / For all methods, only the grades of students who pass the course will be used.

- G = Bölüm tarafından belirlenmiş olan başarılı sayılabilecek minimum not / G = Minimum grade that can be considered successful as determined by the department
- T = Program çıktısı başarısı için eşik değer / T = Threshold value for program output success
- M1: Öğrencilerin %T'sinin not ortalamasının G veya üzerinde olması / M1: T% of students have a grade point average of G or above
- M2: Öğrencilerin %T'sinin bölüm ortalaması üzerinde not almış olması / M2: %T of students have received grades above the department average
- M3: Öğrencilerin not ortalamasının G veya üzerinde olması / M3: Students' grade point average should be G or above
- M4: Öğrencilerin %T'sinin not ortalamasının dersi alan tüm öğrencilerin ortalamasına eşit veya daha yüksek olması / M4: The GPA of %T of students is equal to or higher than the average of all students taking the course

### 3.2. PERFORMANS ÖLÇÜMLERİNDE KULLANILAN METOTLAR VE PERFORMANS SONUÇ DETAYLARI / METHODS USED IN PERFORMANCE MEASUREMENTS AND PERFORMANCE RESULT DETAILS

Program Çıktısı / Program Outcome	Yeterlilik Hesaplama Yöntemi / Method	(Ortalama) Yeterlilik Notu / Minimum Successful Grade	Yeterlilik Eşiği (%) / Threshold Percentage (%)	Toplam Öğrenci Sayısı / Number of Students (All)	Toplam Dept. Öğrenci Sayısı / Number of Students (Dept.)	Tüm Öğrenci Ort. / Average (All Std.)	Dept. Öğrenci Ort. / Average (Dept. Std.)	Yeterliliği Sağlayan Öğrenci Sayısı (Toplam) / Number of Succ. Students (All)	Yeterliliği Sağlayan Öğrenci Sayısı (Dept.) / Number of Succ. Students (Dept.)	Yeterlilik Oranı (Toplam Öğrenci) / Success Ratio (All)	Yeterlilik Oranı (Bölüm Öğrenci) / Success Ratio (Dept.)	Performans / Performance	Yeterlilik Oranı / Success Ratio
<b>CHEM 101 - Kimyanın Temelleri I / CHEM 101 - Principles of Chemistry I</b>													
a	M3	50		82	32	74.50	72.42	82	32	100.00	100.00	Yeterli ✓ / Sufficient ✓	72.42
b	M3	50		82	32	74.50	72.42	82	32	100.00	100.00	Yeterli ✓ / Sufficient ✓	72.42
<b>CHEM 233 - Organik Kimyanın Temelleri I / CHEM 233 - Principles of Organic Chemistry I</b>													
a	M1	20	75	64	64	58.02	58.02	64	64	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>COMD 358 - Profesyonel İletişim / COMD 358 - Professional Communication</b>													
c	M1	60	70	400	44	83.62	90.11	398	44	99.50	100.00	Yeterli ✓ / Sufficient ✓	100.00
e	M1	60	70	400	44	83.62	90.11	398	44	99.50	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>CS 115 - Python ile Programlamaya Giriş / CS 115 - Introduction to Programming in Python</b>													
a	M1	40	75	351	42	69.76	61.82	346	42	98.58	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	40	75	351	42	69.76	61.82	346	42	98.58	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>ENG 101 - İngilizce ve Kompozisyon I / ENG 101 - English and Composition I</b>													
e	M1	70	75	1698	41	82.20	85.51	1560	41	91.87	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>ENG 102 - İngilizce ve Kompozisyon II / ENG 102 - English and Composition II</b>													
e	M1	70	70	543	13	85.44	87.24	526	13	96.87	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>GE 100 - Üniversite Hayatına Giriş / GE 100 - Orientation</b>													
f	M1	12	80	1681	41	97.14	97.80	1681	41	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
h	M1	12	80	1681	41	97.14	97.80	1681	41	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00



Program Çıktısı / Program Outcome	Yeterlilik Hesaplama Yöntemi / Method	(Ortalama) Yeterlilik Notu / Minimum Successful Grade	Yeterlilik Eşiği (%) / Threshold Percentage (%)	Toplam Öğrenci Sayısı / Number of Students (All)	Toplam Dept. Öğrenci Sayısı / Number of Students (Dept.)	Tüm Öğrenci Ort. / Average (All Std.)	Dept. Öğrenci Ort. / Average (Dept. Std.)	Yeterliliği Sağlayan Öğrenci Sayısı (Toplam) / Number of Succ. Students (All)	Yeterliliği Sağlayan Öğrenci Sayısı (Dept.) / Number of Succ. Students (Dept.)	Yeterlilik Oranı (Toplam Öğrenci) / Success Ratio (All)	Yeterlilik Oranı (Bölüm Öğrenci) / Success Ratio (Dept.)	Performans / Performance	Yeterlilik Oranı / Success Ratio
<b>GE 251 - Üniversite Etkinlik Programı II / GE 251 - Collegiate Activities Program II</b>													
f	M1	70	70	838	34	93.01	98.82	776	33	92.60	97.06	Yeterli ✓ / Sufficient ✓	97.06
h	M1	70	70	838	34	93.01	98.82	776	33	92.60	97.06	Yeterli ✓ / Sufficient ✓	97.06
<b>HIST 200 - Türkiye Tarihi / HIST 200 - History of Turkey</b>													
c	M1	70	75	1055	50	93.35	93.72	1044	50	98.96	100.00	Yeterli ✓ / Sufficient ✓	100.00
e	M1	70	75	1055	50	93.35	93.72	1044	50	98.96	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>HUM 111 - Kültürler, Medeniyetler ve Düşünceler I / HUM 111 - Cultures Civilizations and Ideas I</b>													
e	M1	60	75	1110	44	83.62	85.99	1099	43	99.01	97.73	Yeterli ✓ / Sufficient ✓	97.73
f	M1	60	75	1110	44	83.62	85.99	1099	43	99.01	97.73	Yeterli ✓ / Sufficient ✓	97.73
<b>MATH 101 - Matematik I / MATH 101 - Calculus I</b>													
a	M1	40	50	741	46	65.46	55.16	686	36	92.58	78.26	Yeterli ✓ / Sufficient ✓	78.26
b	M1	40	50	741	46	65.46	55.16	686	36	92.58	78.26	Yeterli ✓ / Sufficient ✓	78.26
c	M1	40	50	741	46	65.46	55.16	686	36	92.58	78.26	Yeterli ✓ / Sufficient ✓	78.26
<b>MBG 101 - Biyoloji I / MBG 101 - Biology I</b>													
a	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
b	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
c	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
d	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
e	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
f	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38
g	M1	50	50	53	52	72.22	72.19	48	47	90.57	90.38	Yeterli ✓ / Sufficient ✓	90.38

Program Çıktısı / Program Outcome	Yeterlilik Hesaplama Yöntemi / Method	(Ortalama) Yeterlilik Notu / Minimum Successful Grade	Yeterlilik Eşiği (%) / Treshold Percentage (%)	Toplam Öğrenci Sayısı / Number of Students (All)	Toplam Dept. Öğrenci Sayısı / Number of Students (Dept.)	Tüm Öğrenci Ort. / Average (All Std.)	Dept. Öğrenci Ort. / Average (Dept. Std.)	Yeterliliği Sağlayan Öğrenci Sayısı (Toplam) / Number of Succ. Students (All)	Yeterliliği Sağlayan Öğrenci Sayısı (Dept.) / Number of Succ. Students (Dept.)	Yeterlilik Oranı (Toplam Öğrenci) / Success Ratio (All)	Yeterlilik Oranı (Bölüm Öğrenci) / Success Ratio (Dept.)	Performans / Performance	Yeterlilik Oranı / Success Ratio
<b>MBG 210 - Genetik / MBG 210 - Genetics</b>													
a	M1	50	50	65	64	78.01	78.40	65	64	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
b	M1	50	50	65	64	78.01	78.40	65	64	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
c	M1	50	50	65	64	78.01	78.40	65	64	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
d	M1	50	50	65	64	78.01	78.40	65	64	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>MBG 301 - Moleküler Hücre Biyolojisi I / MBG 301 - Molecular Biology of the Cell I</b>													
a	M1	50	50	72	65	72.44	72.33	71	64	98.61	98.46	Yeterli ✓ / Sufficient ✓	98.46
d	M1	50	50	72	65	72.44	72.33	71	64	98.61	98.46	Yeterli ✓ / Sufficient ✓	98.46
e	M1	50	50	72	65	72.44	72.33	71	64	98.61	98.46	Yeterli ✓ / Sufficient ✓	98.46
f	M1	50	50	72	65	72.44	72.33	71	64	98.61	98.46	Yeterli ✓ / Sufficient ✓	98.46
<b>MBG 311 - Biyokimya I / MBG 311 - Biochemistry I</b>													
a	M1	50	50	66	66	51.36	51.36	34	34	51.52	51.52	Yeterli ✓ / Sufficient ✓	51.52
b	M1	50	50	66	66	51.36	51.36	34	34	51.52	51.52	Yeterli ✓ / Sufficient ✓	51.52
<b>MBG 324 - Gen Moleküler Biyolojisi / MBG 324 - Molecular Biology of the Gene</b>													
a	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
b	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
c	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
d	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
e	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
f	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39
g	M1	50	50	62	62	80.10	80.10	61	61	98.39	98.39	Yeterli ✓ / Sufficient ✓	98.39

Program Çıktısı / Program Outcome	Yeterlilik Hesaplama Yöntemi / Method	(Ortalama) Yeterlilik Notu / Minimum Successful Grade	Yeterlilik Eşiği (%) / Treshold Percentage (%)	Toplam Öğrenci Sayısı / Number of Students (All)	Toplam Dept. Öğrenci Sayısı / Number of Students (Dept.)	Tüm Öğrenci Ort. / Average (All Std.)	Dept. Öğrenci Ort. / Average (Dept. Std.)	Yeterliliği Sağlayan Öğrenci Sayısı (Toplam) / Number of Succ. Students (All)	Yeterliliği Sağlayan Öğrenci Sayısı (Dept.) / Number of Succ. Students (Dept.)	Yeterlilik Oranı (Toplam Öğrenci) / Success Ratio (All)	Yeterlilik Oranı (Bölüm Öğrenci) / Success Ratio (Dept.)	Performans / Performance	Yeterlilik Oranı / Success Ratio
<b>MBG 416 - Bilim ve Etik / MBG 416 - Science and Ethics</b>													
d	M1	50	50	58	52	81.66	81.88	58	52	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
e	M1	50	50	58	52	81.66	81.88	58	52	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>MBG 491 - Mezuniyet Projesi I / MBG 491 - Senior Project I</b>													
a	M1	20	50	49	49	34.68	34.68	43	43	87.76	87.76	Yeterli ✓ / Sufficient ✓	87.76
c	M1	20	50	49	49	34.68	34.68	43	43	87.76	87.76	Yeterli ✓ / Sufficient ✓	87.76
d	M1	20	50	49	49	34.68	34.68	43	43	87.76	87.76	Yeterli ✓ / Sufficient ✓	87.76
e	M1	20	50	49	49	34.68	34.68	43	43	87.76	87.76	Yeterli ✓ / Sufficient ✓	87.76
<b>PHYS 101 - Genel Fizik I / PHYS 101 - General Physics I</b>													
a	M1	50	50	663	67	68.54	61.55	598	55	90.20	82.09	Yeterli ✓ / Sufficient ✓	82.09
e	M1	50	50	663	67	68.54	61.55	598	55	90.20	82.09	Yeterli ✓ / Sufficient ✓	82.09
<b>TURK 101 - Türkçe I / TURK 101 - Turkish I</b>													
e	M1	70	60	1516	36	87.68	88.04	1493	36	98.48	100.00	Yeterli ✓ / Sufficient ✓	100.00
<b>TURK 102 - Türkçe II / TURK 102 - Turkish II</b>													
e	M1	70	60	492	12	90.84	91.50	487	12	98.98	100.00	Yeterli ✓ / Sufficient ✓	100.00

3.3. PERFORMANS ÖLÇÜM SONUÇLARI / PERFORMANCE MEASUREMENT RESULTS

3.3.1. PROGRAM ÇIKTILARI PERFORMANS TABLOSU / PROGRAM OUTCOMES PERFORMANCE TABLE

Dersler / Courses	Program Çıktıları / Program Outcomes							
	a	b	c	d	e	f	g	h
CHEM 101	✓	✓						
CHEM 233	✓							
COMD 358			✓		✓			
CS 115	✓						✓	
ENG 101					✓			
ENG 102					✓			
GE 100						✓		✓
GE 251						✓		✓
HIST 200			✓		✓			
HUM 111					✓	✓		
MATH 101	✓	✓	✓					
MBG 101	✓	✓	✓	✓	✓	✓	✓	
MBG 210	✓	✓	✓	✓				
MBG 301	✓			✓	✓	✓		
MBG 311	✓	✓						
MBG 324	✓	✓	✓	✓	✓	✓	✓	
MBG 416				✓	✓			
MBG 491	✓		✓	✓	✓			
PHYS 101	✓				✓			
TURK 101					✓			
TURK 102					✓			

**Tablo.3.3.1.** 2023-2024 Akademik Yılı Güz Dönemi Moleküler Biyoloji ve Genetik Lisans Programı Program Çıktıları Performans Tablosu / **Table.3.3.1.** 2023-2024 Academic Year Fall Semester Molecular Biology and Genetics Undergraduate Program - Program Outcomes Performance Table

**3.3.2. PROGRAM ÇIKTILARI PERFORMANS ORANLARI / PROGRAM OUTCOMES PERFORMANCE RATES**

Dersler / Courses	Program Çıktıları / Program Outcomes							
	a	b	c	d	e	f	g	h
CHEM 101	72.42	72.42						
CHEM 233	100.00							
COMD 358			100.00		100.00			
CS 115	100.00						100.00	
ENG 101					100.00			
ENG 102					100.00			
GE 100						100.00		100.00
GE 251						97.06		97.06
HIST 200			100.00		100.00			
HUM 111					97.73	97.73		
MATH 101	78.26	78.26	78.26					
MBG 101	90.38	90.38	90.38	90.38	90.38	90.38	90.38	
MBG 210	100.00	100.00	100.00	100.00				
MBG 301	98.46			98.46	98.46	98.46		
MBG 311	51.52	51.52						
MBG 324	98.39	98.39	98.39	98.39	98.39	98.39	98.39	
MBG 416				100.00	100.00			
MBG 491	87.76		87.76	87.76	87.76			
PHYS 101	82.09				82.09			
TURK 101					100.00			
TURK 102					100.00			

**Tablo.3.3.2.** 2023-2024 Akademik Yılı Güz Dönemi Moleküler Biyoloji ve Genetik Lisans Programı Program Çıktıları Performans Oranları Tablosu / **Table.3.3.2.** 2023-2024 Academic Year Fall Semester Molecular Biology and Genetics Undergraduate Program - Program Outcomes Performance Rates Table