2025-2026 AKADEMİK YILI / Academic Year

EĞİTİMDE KALİTE GÜVENCESİ GÜZ DÖNEMİ RAPORU

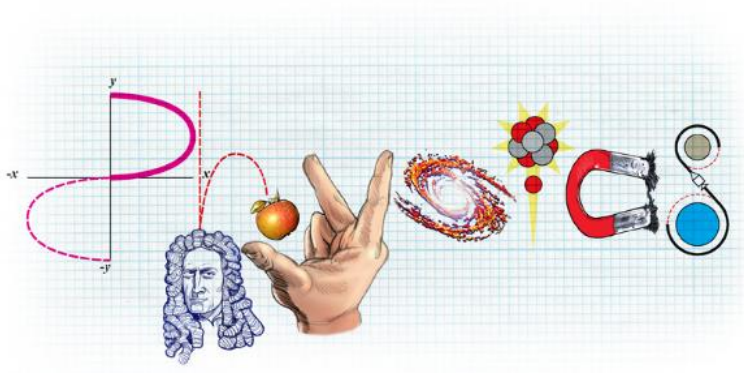
QUALITY ASSURANCE IN EDUCATION FALL SEMESTER REPORT

FEN FAKÜLTESİ

FACULTY OF SCIENCES

FİZİK LİSANS PROGRAMI (PHYS)

PHYSICS UNDERGRADUATE PROGRAM (PHYS)



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FEN FAKÜLTESİ / *FACULTY OF SCIENCES*

FİZİK LİSANS PROGRAMI – PHYS / *PHYSICS*
UNDERGRADUATE PROGRAM - PHYS

1. LİSANS PROGRAMI / *UNDERGRADUATE PROGRAM*
1.1. MÜFREDAT / *CURRICULUM*

Birinci Yıl / *First 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 101	Kimyanın Temelleri I / *Principles of Chemistry I*	3	4	4	6.5
ENG 101	İngilizce ve Kompozisyon I / *English and Composition I*	5	0	3	5
GE 100	Üniversite Hayatına Giriş / *Orientation*	0	0	1	2
MATH 101	Matematik I / *Calculus I*	4	0	4	6.5
PHYS 101	Genel Fizik I / *General Physics I*	3	3	4	6.5
PHYS 120	Fizik Öğrencileri İçin Üniversite Hayatına Giriş / *Orientation for Physics Majors*	1	0	1	2
TURK 101	Türkçe I / *Turkish I*	0	0	2	3.5
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**
CHEM 102	Kimyanın Temelleri II / *Principles of Chemistry II*	3	4	4	6.5
ENG 102	İngilizce ve Kompozisyon II / *English and Composition II*	5	0	3	5
MATH 102	Matematik II / *Calculus II*	4	0	4	6.5
PHYS 102	Genel Fizik II / General Physics II	4	0	4	6.5
TURK 102	Türkçe II / *Turkish II*	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**
CS 115	Python ile Programlamaya Giriş / *Introdcution 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
MATH 241	Mühendislik Matematiği I / *Engineering Mathematics I*	4	0	4	6.5
MBG 110	Modern Biyolojiye Giriş / *Introduction to Modern Biology*	3	0	3	5
PHYS 211	Dalgalar, Optik ve Termodinamik / *Waves, Optics and Thermodynamics*	3	0	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 242	Mühendislik Matematiği II / *Engineering Mathematics II*	4	0	4	6.5
PHYS 212	Modern Fizik / *Modern Physics*	3	0	4	6.5
PHYS 218	Analitik Mekanik / *Analytical Mechanics*	3	0	3	5
PHYS 242	Fizik Uygulamaları İçin İleri Matematik / *Advanced Calculus for Applications in Physics*	3	0	3	5
	Seçmeli Ders / *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
PHYS 291	Yaz Stajı / *Summer Practice*	0	0	0	7
PHYS 315	Elektromanyetik Teori I / *Electromagnetic Theory I*	3	0	3	5
PHYS 325	Kuantum Mekaniği I / *Quantum Mechanics I*	3	0	3	5
PHYS 371	Fizikte Sayısal Yöntemler / *Numerical Methods in Physics*	3	0	3	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
PHYS 334	İstatistiksel Fizik / *Statistical Physics*	3	0	3	5
PHYS 374	Fiziğin Deneysel Yöntemleri / *Experimental Methods of Physics*	3	3	4	6.5
	Seçmeli Ders / *Elective*			3	
	Fizik Seçmeli Dersi / *Physics Elective*			3	

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**
PHYS 491	Bitirme Projesi I / *Senior Project I*	0	4	4	6,5
	Seçmeli Ders / *Elective*			3	
	Fizik Seçmeli Dersi / *Physics Elective*			3	
	Temel Sosyal Bilimler Seçmeli Dersi / *Social Science Core Elective*			3	
	Teknik Seçmeli Ders / *Technical Elective*			3	
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**
PHYS 492	Bitirme Projesi II / *Senior Project II*	0	4	4	6,5
	Temel Sanat Seçmeli Dersi / *Arts Core Elective*			3	
	Seçmeli Ders / *Elective*			3	
	Fizik Seçmeli Dersi / *Physics Elective*			3	
	Teknik Seçmeli Ders (2) / *Technical Elective (2)*			6	

2. PROGRAM ÇIKTILARI / *PROGRAM OUTCOMES*

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

a. Verilen bir problemle ilgili evrensel fiziksel yasaları tanır, bu yasaları matematiksel ve sayısal tekniklerle uygular. / *Recognize universal physical laws relevant to a given problem, apply these laws through mathematical and computational techniques.*

b. Bilimsel bilginin kaynağını, güvenilirliğini ve geçerlilik sınırlarını eleştirel olarak değerlendirir. / *Critically assess the source, reliability and limits of validity of scientific knowledge.*

c. Deneyleri tasarlamak, yürütmek ve analiz etmek için bilimsel yöntemi kullanır. / *Use the scientific method to design, execute and analyze experiments.*

d. Teknolojik kaynakları ve analitik düşünmeyi uygun zaman yönetimi ile kullanarak problem çözme yeteneğini gösterir. / *Demonstrate problem solving ability using technological resources and analytical thinking with proper time management.*

e. Fikirleri, düşünceleri etkili bir şekilde organize edebilir ve bunları çeşitli izleyicilere iletmek için gerekli yazma ve iletişim becerilerini geliştirebilir. / *Develop writing and communication skills necessary to effectively organize ideas and thoughts, and to convey them to various audiences.*

f. Disiplinlerarası çalışmalarda hem bireysel hem de takım üyesi olarak etkin bir şekilde kararlar alır. / *Participate efficiently in interdisciplinary work, taking decisions both individually and as a group member.*

g. Fiziğin küresel, toplumsal, ekonomik ve çevresel etkilerini tanımlar. / *Identify the global impact of physics in societal, economic and environmental contexts.*

h. Mevcut bilgi durumunu değerlendirir ve spesifik hedefler için yeni bilgi edinme planını iyileştirir. / *Evaluate current state of knowledge and refine a plan to acquire new knowledge for specific goals.*

i. Mesleki ve etik sorumluluğu, iş sağlığı ve işyeri güvenliğini göz önünde bulundurur. / *Demonstrate professional and ethical responsibility, value occupational health and workplace safety.*

j. Öğrenciler, derslerin yanı sıra çeşitli ve yaratıcı, sanatsal, kültürel, sportif ve entelektüel faaliyetlere katılarak kampüs hayatından daha fazla faydalanırlar. / *Take advantage of the campus life where students are engaged in diversity, creativity, and commitment outside coursework through artistic, cultural, sportive, and intellectual activities.*

2.2. PROGRAM ÇIKTILARI – DERSLER MATRİSİ / *PROGRAM OUTCOMES - COURSES TABLE*

Dersler / *Courses*	Program Çıktıları / *Program Outcomes*									
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
CHEM 101	✔	✔	✔							
CHEM 102	✔		✔	✔		✔				
COMD 358				✔	✔	✔	✔	✔	✔	
CS 115	✔	✔		✔	✔					
ENG 101		✔			✔	✔			✔	
ENG 102		✔			✔	✔	✔	✔	✔	
GE 100							✔	✔		✔
GE 250						✔	✔	✔		✔
GE 251							✔	✔		✔
HIST 200		✔			✔	✔		✔	✔	
HUM 111		✔		✔	✔				✔	
HUM 112		✔		✔	✔				✔	
MATH 101	✔	✔		✔	✔	✔				
MATH 102	✔	✔		✔	✔	✔				
MATH 241	✔			✔						
MATH 242	✔			✔						
MBG 110	✔	✔	✔			✔	✔		✔	

Dersler / *Courses*	Program Çıktıları / *Program Outcomes*									
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
PHYS 101	✔	✔			✔					
PHYS 102	✔	✔			✔					
PHYS 120			✔						✔	
PHYS 211	✔		✔	✔						
PHYS 212	✔		✔				✔			
PHYS 218	✔		✔	✔						
PHYS 242	✔			✔						
PHYS 291					✔	✔	✔		✔	
PHYS 315	✔		✔	✔						
PHYS 325	✔	✔	✔	✔						
PHYS 334	✔			✔			✔			
PHYS 371	✔	✔	✔	✔	✔					
PHYS 374		✔		✔	✔	✔		✔		
PHYS 491		✔	✔	✔	✔					
PHYS 492		✔	✔	✔	✔					
TURK 101					✔		✔	✔		
TURK 102					✔		✔	✔		

Tablo.2.2. Fizik Lisans Programı - Program Çıktıları ve Dersler Tablosu / ***Table.2.2.*** *Physics 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
	Program Outputs	**Lab work**	**Final:Essay/ written**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**
	c	50	50	100	M3	50

Course Code	Program Outputs	Homework	Homework	Homework	Homework	Midterm	Presentations	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
COMD 358	e	5	5	5	5	30	40	10	100	M1	60	70
	Program Outputs	**Homework**	**Homework**	**Homework**	**Homework**	**Midterm**	**Presentations**	**In-class participation**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	f	5	5	5	5	30	40	10	100	M1	60	70
	Program Outputs	**Homework**	**Homework**	**Homework**	**Homework**	**Midterm**	**Presentations**	**In-class participation**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	i	5	5	5	5	30	40	10	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	d	40	20	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	h	100	100	M1	12	80
	Program Outputs	**In-class participation**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	j	100	100	M1	12	80

Course Code	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
GE 251	j	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	e	10	60	30	100	M1	70	75
	Program Outputs	**Oral presentation**	**Research essay**	**Performance**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	f	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	d	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 (%)**
	e	30	30	10	30	100	M1	60	75

Course Code	Program Outputs	Quizzes	In-class participation	Final:Essay/ written	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
HUM 112	d	30	10	30	30	100	M1	60	75	
	Program Outputs	**Quizzes**	**In-class participation**	**Final:Essay/ written**	**Project**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**	
	e	30	10	30	30	100	M1	60	75	

Course Code	Program Outputs	Midterm	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
MATH 101	a	30	30	40	100	M1	40	50
	Program Outputs	**Midterm**	**Midterm**	**Final**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	b	30	30	40	100	M1	40	50
	Program Outputs	**Midterm**	**Midterm**	**Final**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	d	30	30	40	100	M1	40	50

Course Code	Program Outputs	Midterm:Essay/ written	Final:Essay/ written	Quiz	Quiz	Quiz	Quiz	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
MATH 241	a	35	35	6	6	6	6	6	100	M1	25	75
	Program Outputs	**Midterm:Essay/ written**	**Final:Essay/ written**	**Quiz**	**Quiz**	**Quiz**	**Quiz**	**Quiz**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	d	35	35	6	6	6	6	6	100	M1	25	75

Course Code	Program Outputs	Midterm:Essay/ written	Quiz	Homework	Final:Essay/ written	MATLAB	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
MATH 242	a	30	30	5	30	5	100	M1	30	75
	Program Outputs	**Midterm:Essay/ written**	**Quiz**	**Homework**	**Final:Essay/ written**	**MATLAB**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**
	d	30	30	5	30	5	100	M1	30	75

Course Code	Program Outputs	Homework	Quiz	Quiz	Quiz	Midterm	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
MBG 110	b	7,5	7,5	7,5	7,5	20	25	25	100	M1	50	50
	Program Outputs	Homework	Quiz	Quiz	Quiz	Midterm	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	7,5	7,5	7,5	7,5	20	25	25	100	M1	50	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	15	5	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 (%)
	b	15	20	15	5	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	15	5	25	20	100	M1	50	50

Course Code	Program Outputs	Midterm	Midterm	Quiz	Homework	Final	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 102	a	15	20	15	5	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 (%)
	b	15	20	15	5	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	15	5	25	20	100	M1	50	50

Course Code	Program Outputs	In-class attendance	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 120	c	50	50	100	M1	50	50
	Program Outputs	In-class attendance	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	i	50	50	100	M1	50	50

Course Code	Program Outputs	Final:Essay/ written	Midterm:Essay/ written	Project	Homework	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
PHYS 211	a	25	20	30	10	15	100	M1	50	50	
	Program Outputs	Final:Essay/ written	Midterm:Essay/ written	Project	Homework	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
	c	25	20	30	10	15	100	M1	50	50	

Course Code	Program Outputs	Midterm:Essay/ written	Midterm:Essay/ written	Homework	Final:Essay/ written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 315	a	25	25	15	35	100	M1	50	50
	Program Outputs	Midterm:Essay/ written	Midterm:Essay/ written	Homework	Final:Essay/ written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	c	25	25	15	35	100	M1	50	50

Course Code	Program Outputs	Midterm:Essay/ written	Midterm:Essay/ written	Final:Essay/ written	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 325	a	25	25	35	15	100	M1	50	50
	Program Outputs	Midterm:Essay/ written	Midterm:Essay/ written	Final:Essay/ written	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	c	25	25	35	15	100	M1	50	50

Course Code	Program Outputs	Quiz	Project	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 371	c	25	35	40	100	M1	50	50
	Program Outputs	Quiz	Project	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	d	25	35	40	100	M1	50	50
	Program Outputs	Quiz	Project	Homework	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	e	25	35	40	100	M1	50	50

Course Code	Program Outputs	Papers(s)/ Reports	Presentations	Papers(s)/ Reports	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 491	b	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Presentations	Papers(s)/ Reports	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	c	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Presentations	Papers(s)/ Reports	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	d	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Presentations	Papers(s)/ Reports	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	e	20	40	40	100	M1	50	50

Course Code	Program Outputs	Papers(s)/ Reports	Papers(s)/ Reports	Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
PHYS 492	b	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Papers(s)/ Reports	Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	c	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Papers(s)/ Reports	Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	d	20	40	40	100	M1	50	50
	Program Outputs	Papers(s)/ Reports	Papers(s)/ Reports	Presentations	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	e	20	40	40	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 101	h	70	30	100	M1	70	60	
Course Code	**Program Outputs**	**Blog**	**Final**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**	
TURK 102	a	70	30	100	M1	70	60	
	Program Outputs	**Blog**	**Final**	**Total Contribution**	**Qualification Calculation Method**	**(Average) Qualification Grade**	**Qualification Threshold (%)**	
	h	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: Öğrencilerin ilgili program çıktısını kazanacağı öngörülen minimum not / *G: Minimum grade at which students attain the relevant program outcome*
- T: Dersin ilgili program çıktısının kazanımı için yeterli sayılacağı eşik öğrenci yüzdesi / *T: Threshold percentage of students for the course to be considered sufficient for the attainment of the relevant program outcome*
- M1: Öğrencilerin %T'sinin dönem toplamlarının en az G olması / *M1: T% of the students to have a semester total of at least G*
- M2: Öğrencilerin %T'sinin dönem toplamlarının en az bölümdeki dönem toplamlarının ortalaması kadar olması/ *M2: T% of the students of the department to have a semester total of at least that of the department average*
- M3: Öğrencilerin dönem toplamlarının ortalamasının en az G olması / *M3: Average semester total of students of the department to be at least G*
- M4: Öğrencilerin %T'sinin dönem toplamlarının en az tüm bölümlerdeki tüm öğrencilerin dönem toplamlarının ortalaması kadar olması / *M4: T% of the students of the department to have a semester total of at least average semester total of all students from all departments*

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

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*
CHEM 101 - Kimyanın Temelleri I / *CHEM 101 - Principles of Chemistry I*													
a	M3	50		95	26	75.98	78.43	95	26	100	100	Yeterli √ / Sufficient √	78.43
b	M3	50		95	26	75.98	78.43	95	26	100	100	Yeterli √ / Sufficient √	78.43
c	M3	50		95	26	75.98	78.43	95	26	100	100	Yeterli √ / Sufficient √	78.43
COMD 358 - Profesyonel İletişim / *COMD 358 - Professional Communication*													
e	M1	60	70	488	24	84.59	88.6	487	24	99.8	100	Yeterli √ / Sufficient √	100
f	M1	60	70	488	24	84.59	88.6	487	24	99.8	100	Yeterli √ / Sufficient √	100
i	M1	60	70	488	24	84.59	88.6	487	24	99.8	100	Yeterli √ / Sufficient √	100
CS 115 - Python ile Programlamaya Giriş / *CS 115 - Introduction to Programming in Python*													
d	M1	40	75	361	7	73.04	84.59	359	7	99.45	100	Yeterli √ / Sufficient √	100
ENG 101 - İngilizce ve Kompozisyon I / *ENG 101 - English and Composition I*													
e	M1	70	75	1478	25	83.35	89.62	1377	25	93.17	100	Yeterli √ / Sufficient √	100
ENG 102 - İngilizce ve Kompozisyon II / *ENG 102 - English and Composition II*													
e	M1	70	70	535	6	86.02	89.56	521	6	97.38	100	Yeterli √ / Sufficient √	100
GE 100 - Üniversite Hayatına Giriş / *GE 100 - Orientation*													
h	M1	12	80	1518	26	96.71	99.42	1518	26	100	100	Yeterli √ / Sufficient √	100
j	M1	12	80	1518	26	96.71	99.42	1518	26	100	100	Yeterli √ / Sufficient √	100

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*
GE 251 - Üniversite Etkinlik Programı II / *GE 251 - Collegiate Activities Program II*													
j	M1	70	70	889	12	92.49	95.83	799	11	89.88	91.67	Yeterli √ / Sufficient √	91.67
HIST 200 - Türkiye Tarihi / *HIST 200 - History of Turkey*													
e	M1	70	75	1022	22	91.01	92.84	1006	22	98.43	100	Yeterli √ / Sufficient √	100
f	M1	70	75	1022	22	91.01	92.84	1006	22	98.43	100	Yeterli √ / Sufficient √	100
HUM 111 - Kültürler, Medeniyetler ve Düşünceler I / *HUM 111 - Cultures Civilizations and Ideas I*													
d	M1	60	75	1273	24	83.63	88.48	1262	24	99.14	100	Yeterli √ / Sufficient √	100
e	M1	60	75	1273	24	83.63	88.48	1262	24	99.14	100	Yeterli √ / Sufficient √	100
HUM 112 - Kültürler, Medeniyetler ve Düşünceler II / *HUM 112 - Cultures Civilizations and Ideas II*													
d	M1	60	75	289	4	83.97	81.83	285	4	98.62	100	Yeterli √ / Sufficient √	100
e	M1	60	75	289	4	83.97	81.83	285	4	98.62	100	Yeterli √ / Sufficient √	100
MATH 101 - Matematik I / *MATH 101 - Calculus I*													
a	M1	40	50	690	32	55.03	63.89	547	30	79.28	93.75	Yeterli √ / Sufficient √	93.75
b	M1	40	50	690	32	55.03	63.89	547	30	79.28	93.75	Yeterli √ / Sufficient √	93.75
d	M1	40	50	690	32	55.03	63.89	547	30	79.28	93.75	Yeterli √ / Sufficient √	93.75
MATH 241 - Mühendislik Matematiği I / *A1:N16*													
a	M1	25	75	149	20	57.32	64.21	149	20	100	100	Yeterli √ / Sufficient √	100
d	M1	25	75	149	20	57.32	64.21	149	20	100	100	Yeterli √ / Sufficient √	100

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*
MATH 242 - Mühendislik Matematiği II / *MATH 242 - Engineering Mathematics II*													
a	M1	30	75	77	12	67.62	68.64	77	12	100	100	Yeterli √ / Sufficient √	100
d	M1	30	75	77	12	67.62	68.64	77	12	100	100	Yeterli √ / Sufficient √	100
MBG 110 - Modern Biyolojiye Giriş / *MBG 110 - Introduction to Modern Biology*													
b	M1	50	50	449	25	77.45	84.83	433	25	96.44	100	Yeterli √ / Sufficient √	100
g	M1	50	50	449	25	77.45	84.83	433	25	96.44	100	Yeterli √ / Sufficient √	100
PHYS 101 - Genel Fizik I / *PHYS 101 - General Physics I*													
a	M1	50	50	638	26	73.77	81.83	613	25	96.08	96.15	Yeterli √ / Sufficient √	96.15
b	M1	50	50	638	26	73.77	81.83	613	25	96.08	96.15	Yeterli √ / Sufficient √	96.15
e	M1	50	50	638	26	73.77	81.83	613	25	96.08	96.15	Yeterli √ / Sufficient √	96.15
PHYS 102 - Genel Fizik II / *PHYS 102 - General Physics II*													
a	M1	50	50	179	5	64.59	69.89	152	4	84.92	80	Yeterli √ / Sufficient √	80
b	M1	50	50	179	5	64.59	69.89	152	4	84.92	80	Yeterli √ / Sufficient √	80
e	M1	50	50	179	5	64.59	69.89	152	4	84.92	80	Yeterli √ / Sufficient √	80
PHYS 120 - Fizik Öğrencileri İçin Üniversite Hayatına Giriş / *PHYS 120 - Orientation for Physics Majors*													
c	M1	50	50	31	29	98.26	98.14	31	29	100	100	Yeterli √ / Sufficient √	100
i	M1	50	50	31	29	98.26	98.14	31	29	100	100	Yeterli √ / Sufficient √	100
PHYS 211 - Dalgalar ve Optik / *PHYS 211 - Waves and Optics*													
a	M1	50	50	40	38	67.93	66.98	32	30	80	78.95	Yeterli √ / Sufficient √	78.95
c	M1	50	50	40	38	67.93	66.98	32	30	80	78.95	Yeterli √ / Sufficient √	78.95

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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*
PHYS 315 - Elektromanyetik Teori I / *PHYS 315 - Electromagnetic Theory I*													
a	M1	50	50	39	39	65.88	65.88	31	31	79.49	79.49	Yeterli √ / Sufficient √	79.49
c	M1	50	50	39	39	65.88	65.88	31	31	79.49	79.49	Yeterli √ / Sufficient √	79.49
PHYS 315 - Elektromanyetik Teori I / *PHYS 325 - Quantum Mechanics I*													
a	M1	50	50	44	39	62.41	64.39	30	28	68.18	71.79	Yeterli √ / Sufficient √	71.79
c	M1	50	50	44	39	62.41	64.39	30	28	68.18	71.79	Yeterli √ / Sufficient √	71.79
PHYS 371 - Fizikte Sayısal Yöntemler / *PHYS 371 - Numerical Methods in Physics*													
c	M1	50	50	42	41	78.99	78.78	41	40	97.62	97.56	Yeterli √ / Sufficient √	97.56
d	M1	50	50	42	41	78.99	78.78	41	40	97.62	97.56	Yeterli √ / Sufficient √	97.56
e	M1	50	50	42	41	78.99	78.78	41	40	97.62	97.56	Yeterli √ / Sufficient √	97.56
PHYS 491 - Bitirme Projesi I / *PHYS 491 - Senior Project I*													
b	M1	50	50	28	28	91.62	91.62	28	28	100	100	Yeterli √ / Sufficient √	100
c	M1	50	50	28	28	91.62	91.62	28	28	100	100	Yeterli √ / Sufficient √	100
d	M1	50	50	28	28	91.62	91.62	28	28	100	100	Yeterli √ / Sufficient √	100
e	M1	50	50	28	28	91.62	91.62	28	28	100	100	Yeterli √ / Sufficient √	100
PHYS 492 - Bitirme Projesi II / *PHYS 492 - Senior Project II*													
b	M1	50	50	7	7	89.29	89.29	7	7	100	100	Yeterli √ / Sufficient √	100
c	M1	50	50	7	7	89.29	89.29	7	7	100	100	Yeterli √ / Sufficient √	100

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*
PHYS 492 - Bitirme Projesi II / *PHYS 492 - Senior Project II*													
d	M1	50	50	7	7	89.29	89.29	7	7	100	100	Yeterli √ / Sufficient √	100
e	M1	50	50	7	7	89.29	89.29	7	7	100	100	Yeterli √ / Sufficient √	100
TURK 101 - Türkçe I / *TURK 101 - Turkish I*													
e	M1	70	60	1373	25	87.67	91.39	1347	25	98.11	100	Yeterli √ / Sufficient √	100
h	M1	70	60	1373	25	87.67	91.39	1347	25	98.11	100	Yeterli √ / Sufficient √	100
TURK 102 - Türkçe II / *TURK 102 - Turkish II*													
a	M1	70	60	592	4	88.83	90.01	588	4	99.32	100	Yeterli √ / Sufficient √	100
h	M1	70	60	592	4	88.83	90.01	588	4	99.32	100	Yeterli √ / Sufficient √	100

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	i	j
CHEM 101	✓	✓	✓							
COMD 358					✓	✓			✓	
CS 115				✓						
ENG 101					✓					
ENG 102					✓					
GE 100								✓		✓
GE 251										✓
HIST 200					✓	✓				
HUM 111				✓	✓					
HUM 112				✓	✓					
MATH 101	✓	✓		✓						
MATH 241	✓			✓						
MATH 242	✓			✓						
MBG 110		✓					✓			
PHYS 101	✓	✓			✓					
PHYS 102	✓	✓			✓					
PHYS 120			✓						✓	
PHYS 211	✓		✓							
PHYS 315	✓		✓							
PHYS 325	✓		✓							
PHYS 371			✓	✓	✓					
PHYS 491		✓	✓	✓	✓					
PHYS 492		✓	✓	✓	✓					
TURK 101					✓			✓		
TURK 102	✓							✓		

Tablo.3.3.1. 2025-2026 Akademik Yılı Güz Dönemi Fizik Lisans Programı Program Çıktıları Performans Tablosu / ***Table.3.3.1.*** *2025-2026 Academic Year Fall Semester Physics 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	i	j
CHEM 101	78.43	78.43	78.43							
COMD 358					100	100			100	
CS 115				100						
ENG 101					100					
ENG 102					100					
GE 100								100		100
GE 251										91.67
HIST 200					100	100				
HUM 111				100	100					
HUM 112				100	100					
MATH 101	93.75	93.75		93.75						
MATH 241	100			100						
MATH 242	100			100						
MBG 110		100					100			
PHYS 101	96.15	96.15			96.15					
PHYS 102	80	80			80					
PHYS 120			100						100	
PHYS 211	78.95		78.95							
PHYS 315	79.49		79.49							
PHYS 325	71.79		71.79							
PHYS 371			97.56	97.56	97.56					
PHYS 491		100	100	100	100					
PHYS 492		100	100	100	100					
TURK 101					100			100		
TURK 102	100							100		

Tablo.3.3.2. 2025-2026 Akademik Yılı Güz Dönemi Fizik Lisans Programı Program Çıktıları Performans Oranları Tablosu / ***Table.3.3.2.*** *2025-2026 Academic Year Fall Semester Physics Undergraduate Program - Program Outcomes Performance Rates Table*