

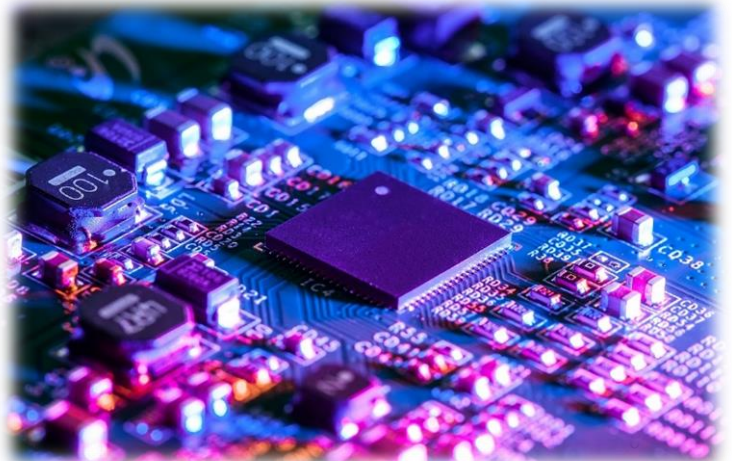
2023-2024 AKADEMİK
YILI / Academic Year

EĞİTİMDE KALİTE GÜVENCESİ GÜZ DÖNEMİ RAPORU

*QUALITY ASSURANCE IN
EDUCATION FALL SEMESTER
REPORT*

MÜHENDİSLİK FAKÜLTESİ
FACULTY OF ENGINEERING

**ELEKTRİK VE ELEKTRONİK
MÜHENDİSLİĞİ LİSANS PROGRAMI (EE)**
*ELECTRICAL AND ELECTRONICS
ENGINEERING UNDERGRADUATE PROGRAM
(EE)*



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MÜHENDİSLİK FAKÜLTESİ / FACULTY OF ENGINEERING
ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ LİSANS
PROGRAMI - EE / ELECTRICAL AND ELECTRONICS
ENGINEERING UNDERGRADUATE PROGRAM - EE

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
CS 115	Python ile Programlamaya Giriş / <i>Introduction to Programming in Python</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
PHYS 101	Genel Fizik I / <i>General Physics I</i>	3	3	4	6,5
TURK 101	Türkçe I / <i>Turkish I</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
EEE 102	Sayısal Devre Tasarımı / <i>Introduction to Digital Circuit Design</i>	4	4	4	6,5
ENG 102	İngilizce ve Kompozisyon II / <i>English and Composition II</i>	5	0	3	5
MATH 102	Matematik II / <i>Calculus II</i>	4	0	4	6,5
PHYS 102	Genel Fizik II / <i>General Physics II</i>	3	3	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
EEE 211	Analog Elektronik / Analog Electronics	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
HUM 111	Kültürler, Medeniyetler ve Düşünceler I / Collegiate Activities Program I	3	0	3	5
MATH 241	Mühendislik Matematiği I / Engineering Mathematics I	4	0	4	6,5
	Matematik veya Fen Seçmeli Dersi / Mathematics or Science 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
EE 202	Devre Teorisi / Circuit Theory	3	4	4	6,5
EEE 212	Mikroişlemciler / Microprocessors	3	4	4	6,5
ENG 401	Teknik Rapor Yazma ve Sunum / Technical Report Writing and Presentation	3	0	3	5
GE 251	Üniversite Etkinlik Programı II / Collegiate Activities Program II	0	0	1	2
HUM 112	Kültürler, Medeniyetler ve Düşünceler II / Cultures Civilizations and Ideas II	3	0	3	5
MATH 242	Mühendislik Matematiği II / Engineering Mathematics II	4	0	4	6,5

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
EEE 299	Yaz Stajı I / Summer Training I	0	0	0	7
EEE 313	Elektronik Devre Tasarımı / Electronic Circuit Design	3	4	4	6,5
EEE 321	Sinyaller ve Sistemler / Signals and Systems	3	2	4	6,5
EEE 351	Mühendislik Elektromanyetiği / Engineering Electromagnetics	3	0	3	5
	Genel Seçmeli Ders / General Elective			3	
	Temel Sosyal Bilimler Seçmeli Dersi / Social Science Core 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
EE 342	Geri Beslemeli Kontrol Sistemleri / Feedback Control Systems	3	0	3	5
MATH 255	Olasılık ve İstatistik / Probability and Statistics	4	0	4	6,5
	Temel Sanat Seçmeli Dersi / Arts Core Elective			3	
	Temel Mühendislik Seçmeli Dersi / Basic Engineering Elective			3	
	Elektrik ve Elektronik Mühendisliği Seçmeli Dersi / EEE 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
EEE 399	Yaz Stajı II / Summer Training II	0	0	0	7
GE 301	Bilim, Teknoloji ve Toplum / Science Technology and Society	2	0	2	3,5
	Elektrik ve Elektronik Mühendisliği Seçmeli Dersi / EEE Elective			3	
	Elektrik ve Elektronik Mühendisliği Sınırlı Seçmeli Dersi / EEE Restricted Elective			3	
	Matematik veya Fen Seçmeli Dersi / Mathematics or Science Elective			3	
	Proje Seçmeli Dersi I / Project Elective I			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
GE 304	Teknoloji, Toplum ve Mesleki Gelişim Semineri / Technology Society and Professional Development Seminar	2	0	1	2
	Elektrik ve Elektronik Mühendisliği Genişletilmiş Seçmeli Dersi (2) / EEE Expanded Elective (2)			6	
	Elektrik ve Elektronik Mühendisliği Sınırlı Seçmeli Dersi / EEE Restricted Elective			3	
	Genel Seçmeli Ders / General Elective			3	
	Proje Seçmeli Dersi II / Project Elective II			3	

2. PROGRAM ÇIKTILARI / PROGRAM OUTCOMES

2.1. PROGRAM ÇIKTILARININ LİSTESİ / LIST OF PROGRAM OUTCOMES

- Mühendislik, fen bilimleri ve matematik ilkelerini uygulayarak karmaşık mühendislik problemlerini tanımlama, formüle etme ve çözme becerisine sahiptir. / An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- Kamu sağlığı, güvenliği ve refahının yanı sıra küresel, kültürel, sosyal, çevresel ve ekonomik faktörleri de dikkate alarak belirlenen ihtiyaçları karşılayacak çözümler üretmek için mühendislik tasarımını uygulama becerisine sahiptir. / An ability to identify engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors.
- Çeşitli kitlelerle etkili bir şekilde iletişim kurabilme becerisine sahiptir. / An ability to communicate effectively with a range of audiences.
- Mühendislik pozisyonlarında etik ve profesyonel sorumlulukları tanıma ve mühendislik çözümlerinin küresel, ekonomik, çevresel ve toplumsal bağlamlardaki

etkisini dikkate alması gereken bilinçli kararlar verme becerisine sahiptir. / *An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.*

- e. Tüm üyeleri ile birlikte, liderlik sağlayan, işbirlikçi ve kapsayıcı bir ortam yaratan, hedefler belirleyen, görevleri planlayan ve hedeflere ulaşan bir ekipte etkili bir şekilde çalışabilme becerisine sahiptir. / *An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.*
- f. Uygun deneyler geliştirme ve yürütme, verileri analiz etme ve yorumlama ve tüm bunlardan sonuç çıkarmak için mühendislik yargısını kullanma becerisine sahiptir. / *An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.*
- g. Uygun öğrenme stratejilerini kullanarak gerektiğinde yeni bilgi edinme ve uygulama becerisine sahiptir. / *An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.*
- h. 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
CS 115	✓							
EEE 102	✓		✓	✓		✓	✓	
EEE 202	✓					✓		
EEE 211	✓	✓	✓	✓		✓		
EEE 212	✓					✓		
EEE 299	✓	✓	✓	✓	✓	✓	✓	
EEE 313	✓	✓				✓		
EEE 321	✓							
EEE 342	✓							
EEE 351	✓	✓						
EEE 399	✓	✓	✓	✓	✓	✓	✓	
ENG 101			✓				✓	
ENG 102			✓				✓	
ENG 401			✓				✓	
GE 100			✓				✓	✓
GE 250			✓				✓	✓

Dersler / Courses	Program Çıktıları / Program Outcomes							
	a	b	c	d	e	f	g	h
GE 251			✓				✓	✓
GE 301				✓	✓		✓	
GE 304		✓		✓			✓	
HIST 200			✓		✓		✓	
HUM 111			✓				✓	
HUM 112			✓				✓	
MATH 101	✓		✓		✓			
MATH 102	✓		✓		✓			
MATH 241	✓							
MATH 242	✓							
MATH 255	✓						✓	
PHYS 101	✓	✓			✓		✓	
PHYS 102	✓	✓			✓		✓	
TURK 101			✓				✓	
TURK 102			✓				✓	

Tablo.2.2. Elektrik ve Elektronik Mühendisliği Lisans Programı - Program Çıktıları ve Dersler Tablosu / *Table.2.2. Electrical and Electronics Engineering 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 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				
Course Code	Program Outputs	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
EEE 102	f	100	100	M1	80	75						
Course Code	Program Outputs	Midterm	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
EEE 202	a	29	29	42	100	M1	30	75				
Course Code	Program Outputs	Quiz	Quiz	Quiz	Quiz	Quiz	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	
EEE 211	a	5	5	5	5	5	35	40	100	M1	45	
		Qualification Threshold (%)										
	75											
	Program Outputs	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work	Lab work
	f	6,5	6,5	6,5	6,5	6,5	6,5	6,5	6,5	6,5	6,5	41,5
Total Contribution		Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)								
		100	M1	70	75							
Course Code	Program Outputs	Project	Project	Lab work	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
EEE 212	f	29	29	21	21	100	M1	60	75			

Course Code	Program Outputs	Midterm:Essay /written	Midterm:Essay /written	Final:Essay /written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)				
EEE 313	a	28,6	28,6	42,8	100	M1	25	75				
Course Code	Program Outputs	Midterm	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)					
EEE 321	a	46	54	100	M1	30	75					
Course Code	Program Outputs	Midterm:Essay /written	Final:Essay /written	Lab work	Lab work	Lab work	Quiz	Quiz	Quiz	Total Contribution	Qualification Calculation Method	
EEE 342	a	29	35	5	5	5	7	7	7	100	M1	
		(Average) Qualification Grade	Qualification Threshold (%)									
		45	75									
Course Code	Program Outputs	Midterm:Essay /written	Final:Essay /written	Quiz	Quiz	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)		
EEE 351	a	32,2	48,3	6,5	6,5	6,5	100	M1	30	75		
	Program Outputs	Project	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)						
	b	100	100	M1	60	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	
ENG 101	c	20	25	8	7	10	5	25	100	M1	70	
		Qualification Threshold (%)										
		75										
	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	
	g	20	25	8	7	10	5	25	100	M1	70	
		Qualification Threshold (%)										
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	c	5	20	20	10	30	15	100	M1	70	70
	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 (%)
	g	5	20	20	10	30	15	100	M1	70	70

Course Code	Program Outputs	Oral presentation	Oral presentation	Written Project Proposal	Written Final Report	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
ENG 401	c	30	15	20	35	100	M1	70	80
	Program Outputs	Oral presentation	Oral presentation	Written Project Proposal	Written Final Report	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	15	30	20	35	100	M1	70	80

Course Code	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
GE 100	c	100	100	M1	12	80
	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	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	c	100	100	M1	70	70
	Program Outputs	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	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	Final	Midterm	Project	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
GE 301	d	25	30	30	15	100	M1	45	60
	Program Outputs	Final	Midterm	Project	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	e	25	30	30	15	100	M1	45	60
	Program Outputs	Final	Midterm	Project	In-class participation	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	25	30	30	15	100	M1	45	60
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	
	Program Outputs	Oral presentation	Research essay	Performance	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
	g	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	c	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 (%)
	g	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	c	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 (%)
	g	30	10	30	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 (%)	
	c	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 (%)	
	e	25	25	30	10	10	100	M1	40	50	
Course Code	Program Outputs	Midterm:Essay / written	Midterm	Final:Essay / written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
MATH 102	a	30	30	40	100	M1	40	50			
	Program Outputs	Midterm:Essay / written	Midterm	Final:Essay / written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
	c	30	30	40	100	M1	40	50			
	Program Outputs	Midterm:Essay / written	Midterm	Final:Essay / written	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)			
	e	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
MATH 241	a	35	35	6	6	6	6	6	100	M1	25
		Qualification Threshold (%)									
		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	

Course Code	Program Outputs	Midterm:Essay / written	Midterm:Essay / written	Final:Essay / written	Homework	Quiz	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)	
MATH 255	a	25	25	40	5	5	100	M1	35	75	
<hr/>											
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 (%)
	b	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
	Program Outputs	Midterm	Midterm	Quiz	Homework	Final	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	15	20	10	10	25	20	100	M1	50	50
<hr/>											
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	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 (%)
	b	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
	Program Outputs	Midterm	Midterm	Quiz	Homework	Final	Lab work	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	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	c	70	30	100	M1	70	60
	Program Outputs	Blog	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	70	30	100	M1	70	60
Course Code	Program Outputs	Blog	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
TURK 102	c	70	30	100	M1	70	60
	Program Outputs	Blog	Final	Total Contribution	Qualification Calculation Method	(Average) Qualification Grade	Qualification Threshold (%)
	g	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
CS 115 - Python ile Programlamaya Giriş / CS 115 - Introduction to Programming in Python													
a	M1	40	75	351	141	69.76	75.73	346	140	98.58	99.29	Yeterli ✓ / Sufficient ✓	99.29
EEE 102 - Sayısal Devre Tasarımı / EEE 102 - Introduction to Digital Circuit Design													
f	M1	80	75	120	120	96.84	96.84	117	117	97.50	97.50	Yeterli ✓ / Sufficient ✓	97.50
EEE 202 - Devre Teorisi / EEE 202 - Circuit Theory													
a	M1	30	75	77	77	59.89	59.89	77	77	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
EEE 211 - Analog Elektronik / EEE 211 - Analog Electronics													
a	M1	45	75	131	130	65.55	65.73	110	110	83.97	84.62	Yeterli ✓ / Sufficient ✓	84.62
f	M1	70	75	131	130	97.62	97.62	131	130	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
EEE 212 - Mikroşlemciler / EEE 212 - Microprocessors													
f	M1	60	75	56	55	86.87	86.93	53	52	94.64	94.55	Yeterli ✓ / Sufficient ✓	94.55
EEE 313 - Elektronik Devre Tasarımı / EEE 313 - Electronic Circuit Design													
a	M1	25	75	104	104	45.87	45.87	89	89	85.58	85.58	Yeterli ✓ / Sufficient ✓	85.58
EEE 321 - Sinyaller ve Sistemler / EEE 321 - Signals and Systems													
a	M1	30	75	81	80	56.08	56.17	75	74	92.59	92.50	Yeterli ✓ / Sufficient ✓	92.50
EEE 342 - Geri Beslemeli Kontrol Sistemleri / EEE 342 - Feedback Control Systems													
a	M1	45	75	70	69	60.84	60.60	57	56	81.43	81.16	Yeterli ✓ / Sufficient ✓	81.16
EEE 351 - Mühendislik Elektromanyetiği / EEE 351 - Engineering Electromagnetics													
a	M1	30	75	82	82	51.59	51.59	81	81	98.78	98.78	Yeterli ✓ / Sufficient ✓	98.78
b	M1	60	75	82	82	81.85	81.85	82	82	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
ENG 101 - İngilizce ve Kompozisyon I / ENG 101 - English and Composition I													
c	M1	70	75	1698	129	82.20	86.82	1560	128	91.87	99.22	Yeterli ✓ / Sufficient ✓	99.22
g	M1	70	75	1698	129	82.20	86.82	1560	128	91.87	99.22	Yeterli ✓ / Sufficient ✓	99.22
ENG 102 - İngilizce ve Kompozisyon II / ENG 102 - English and Composition II													
c	M1	70	70	543	36	85.44	89.11	526	35	96.87	97.22	Yeterli ✓ / Sufficient ✓	97.22
g	M1	70	70	543	36	85.44	89.11	526	35	96.87	97.22	Yeterli ✓ / Sufficient ✓	97.22
ENG 401 - Teknik Rapor Yazma ve Sunum / ENG 401 - Technical Report Writing and Presentation													
c	M1	70	80	266	37	88.72	87.59	266	37	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	70	80	266	37	88.72	87.59	266	37	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
GE 100 - Üniversite Hayatına Giriş / GE 100 - Orientation													
c	M1	12	80	1681	128	97.14	98.71	1681	128	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	12	80	1681	128	97.14	98.71	1681	128	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
h	M1	12	80	1681	128	97.14	98.71	1681	128	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
GE 251 - Üniversite Etkinlik Programı II / GE 251 - Collegiate Activities Program II													
c	M1	70	70	838	64	93.01	94.38	776	62	92.60	96.88	Yeterli ✓ / Sufficient ✓	96.88
g	M1	70	70	838	64	93.01	94.38	776	62	92.60	96.88	Yeterli ✓ / Sufficient ✓	96.88
h	M1	70	70	838	64	93.01	94.38	776	62	92.60	96.88	Yeterli ✓ / Sufficient ✓	96.88
GE 301 - Bilim, Teknoloji ve Toplum / GE 301 - Science Technology and Society													
d	M1	45	60	366	99	82.99	85.38	366	99	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
e	M1	45	60	366	99	82.99	85.38	366	99	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	45	60	366	99	82.99	85.38	366	99	100.00	100.00	Yeterli ✓ / Sufficient ✓	100.00

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
HIST 200 - Türkiye Tarihi / HIST 200 - History of Turkey													
c	M1	70	75	1055	101	93.35	94.94	1044	101	98.96	100.00	Yeterli ✓ / Sufficient ✓	100.00
e	M1	70	75	1055	101	93.35	94.94	1044	101	98.96	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	70	75	1055	101	93.35	94.94	1044	101	98.96	100.00	Yeterli ✓ / Sufficient ✓	100.00
HUM 111 - Kùltürler, Medeniyetler ve Düşünceler I / HUM 111 - Cultures Civilizations and Ideas I													
c	M1	60	75	1110	130	83.62	85.83	1099	130	99.01	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	60	75	1110	130	83.62	85.83	1099	130	99.01	100.00	Yeterli ✓ / Sufficient ✓	100.00
HUM 112 - Kùltürler, Medeniyetler ve Düşünceler II / HUM 112 - Cultures Civilizations and Ideas II													
c	M1	60	75	238	36	83.67	85.16	237	36	99.58	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	60	75	238	36	83.67	85.16	237	36	99.58	100.00	Yeterli ✓ / Sufficient ✓	100.00
MATH 101 - Matematik I / MATH 101 - Calculus I													
a	M1	40	50	741	145	65.46	72.38	686	138	92.58	95.17	Yeterli ✓ / Sufficient ✓	95.17
c	M1	40	50	741	145	65.46	72.38	686	138	92.58	95.17	Yeterli ✓ / Sufficient ✓	95.17
e	M1	40	50	741	145	65.46	72.38	686	138	92.58	95.17	Yeterli ✓ / Sufficient ✓	95.17
MATH 102 - Matematik II / MATH 102 - Calculus II													
a	M1	40	50	215	40	54.07	57.79	156	35	72.56	87.50	Yeterli ✓ / Sufficient ✓	87.50
c	M1	40	50	215	40	54.07	57.79	156	35	72.56	87.50	Yeterli ✓ / Sufficient ✓	87.50
e	M1	40	50	215	40	54.07	57.79	156	35	72.56	87.50	Yeterli ✓ / Sufficient ✓	87.50

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 241 - Mühendislik Matematiği I / MATH 241 - Engineering Mathematics I													
a	M1	25	75	129	107	41.65	41.88	112	94	86.82	87.85	Yeterli ✓ / Sufficient ✓	87.85
MATH 242 - Mühendislik Matematiği II / MATH 242 - Engineering Mathematics II													
a	M1	30	75	70	61	57.16	57.14	68	59	97.14	96.72	Yeterli ✓ / Sufficient ✓	96.72
MATH 255 - Olasılık ve İstatistik / MATH 255 - Probability and Statistics													
a	M1	35	75	78	77	52.38	52.62	69	69	88.46	89.61	Yeterli ✓ / Sufficient ✓	89.61
PHYS 101 - Genel Fizik I / PHYS 101 - General Physics I													
a	M1	50	50	663	135	68.54	75.85	598	131	90.20	97.04	Yeterli ✓ / Sufficient ✓	97.04
b	M1	50	50	663	135	68.54	75.85	598	131	90.20	97.04	Yeterli ✓ / Sufficient ✓	97.04
e	M1	50	50	663	135	68.54	75.85	598	131	90.20	97.04	Yeterli ✓ / Sufficient ✓	97.04
g	M1	50	50	663	135	68.54	75.85	598	131	90.20	97.04	Yeterli ✓ / Sufficient ✓	97.04
PHYS 102 - Genel Fizik II / PHYS 102 - General Physics II													
a	M1	50	50	135	44	63.16	67.40	107	39	79.26	88.64	Yeterli ✓ / Sufficient ✓	88.64
b	M1	50	50	135	44	63.16	67.40	107	39	79.26	88.64	Yeterli ✓ / Sufficient ✓	88.64
e	M1	50	50	135	44	63.16	67.40	107	39	79.26	88.64	Yeterli ✓ / Sufficient ✓	88.64
g	M1	50	50	135	44	63.16	67.40	107	39	79.26	88.64	Yeterli ✓ / Sufficient ✓	88.64
TURK 101 - Türkçe I / TURK 101 - Turkish I													
c	M1	70	60	1516	126	87.68	89.20	1493	125	98.48	99.21	Yeterli ✓ / Sufficient ✓	99.21
g	M1	70	60	1516	126	87.68	89.20	1493	125	98.48	99.21	Yeterli ✓ / Sufficient ✓	99.21

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
TURK 102 - Türkçe II / TURK 102 - Turkish II													
c	M1	70	60	492	49	90.84	92.11	487	49	98.98	100.00	Yeterli ✓ / Sufficient ✓	100.00
g	M1	70	60	492	49	90.84	92.11	487	49	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
CS 115	✓							
EEE 102						✓		
EEE 202	✓							
EEE 211	✓					✓		
EEE 212						✓		
EEE 313	✓							
EEE 321	✓							
EEE 342	✓							
EEE 351	✓	✓						
ENG 101			✓				✓	
ENG 102			✓				✓	
ENG 401			✓				✓	
GE 100			✓				✓	✓
GE 251			✓				✓	✓
GE 301				✓	✓		✓	
HIST 200			✓		✓		✓	
HUM 111			✓				✓	
HUM 112			✓				✓	
MATH 101	✓		✓		✓			
MATH 102	✓		✓		✓			
MATH 241	✓							
MATH 242	✓							
MATH 255	✓							
PHYS 101	✓	✓			✓		✓	
PHYS 102	✓	✓			✓		✓	
TURK 101			✓				✓	
TURK 102			✓				✓	

Tablo.3.3.1. 2023-2024 Akademik Yılı Güz Dönemi Elektrik ve Elektronik Mühendisliği Lisans Programı Program Çıktıları Performans Tablosu / *Table.3.3.1. 2023-2024 Academic Year Fall Semester Electrical and Electronics Engineering 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
CS 115	99.29							
EEE 102						97.50		
EEE 202	100.00							
EEE 211	84.62					100.00		
EEE 212						94.55		
EEE 313	85.58							
EEE 321	92.50							
EEE 342	81.16							
EEE 351	98.78	100.00						
ENG 101			99.22				99.22	
ENG 102			97.22				97.22	
ENG 401			100.00				100.00	
GE 100			100.00				100.00	100.00
GE 251			96.88				96.88	96.88
GE 301				100.00	100.00		100.00	
HIST 200			100.00		100.00		100.00	
HUM 111			100.00				100.00	
HUM 112			100.00				100.00	
MATH 101	95.17		95.17		95.17			
MATH 102	87.50		87.50		87.50			
MATH 241	87.85							
MATH 242	96.72							
MATH 255	89.61							
PHYS 101	97.04	97.04			97.04		97.04	
PHYS 102	88.64	88.64			88.64		88.64	
TURK 101			99.21				99.21	
TURK 102			100.00				100.00	

Tablo.3.3.2. 2023-2024 Akademik Yılı Güz Dönemi Elektrik ve Elektronik Mühendisliği Lisans Programı Program Çıktıları Performans Oranları Tablosu / *Table.3.3.2. 2023-2024 Academic Year Fall Semester Electrical and Electronics Engineering Undergraduate Program - Program Outcomes Performance Rates Table*