

2025-10136 Electrical and Electronics Engineering (EN) Bachelor

1						2					
No	Course code	Title	Th	Pr	Ects	No	Course code	Title	Th	Pr	Ects
1	PHYS 200	Fundamentals of Physics	2	1+1	6	1	COMP 166	Computer technologies and programming	2	2+0	6
2	CHE 181	Chemistry	2	0+1	6	2	PHYS 127	Applied Physics	2	1+1	6
3	AZD 140	Official and Academic Communication in the Azerbaijani language	0	2+0	4	3	MATH 197	Mathematical analysis- 1	2	2+0	4
4	MATH 137	Linear algebra and analytic geometry	2	1+0	4	4	ME 158	Engineering and computer graphics	2	1+1	6
5	XXX XXX	[NAE] Foreign language II	0	6+0	5	5	XXX XXX	[NAE] Foreign language III	0	6+0	5
6	XXX XXX	[NAE] Foreign language I	0	6+0	5	6	XXX XXX	[NAE] Non-Area Elective Course I #1	1	1+0	3
Subtotal: 30						Subtotal: 30					

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№	Course code	Title	Th	Pr	Ects
1	ELC 219	Theory of electrical circuits- 1	2	1+1	6
2	TRX 111	History of Azerbaijan	2	2+0	5
3	ME 219	Engineering mechanics	3	1+0	6
4	ELC 221	Materials of electrical and electronic equipment	2	1+1	6
5	MM 120	Civil Defence	3	0+0	3
6	MATH 196	Mathematical analysis- 2	2	2+0	4

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ELC 321	Basics of field technology	2	1+1	6
2	ELC 204	Analog electronics	2	0+2	6
3	ELC 202	Theory of electrical circuits- 2	2	1+1	6
4	MATH 215	Applied mathematics	2	2+0	4
5	XXX XXX	[AE] Area Elective Course III #3	4	1+1	8

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	RTE 303	Alarms and systems	2	2+0	6
2	ELC 201	Digital electronics and programmable integrated schemes	2	1+1	6
3	ELC 303	Electrical machines	2	1+1	6
4	EE 317	Electrical measurements and instruments	2	0+2	6
5	XXX XXX	[AE] Area Elective Course IV #4	2	2+0	6

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ELC 302	Power electronics and electrical transmission	2	1+1	5
2	PAE 312	Management theory	2	2+0	6
3	XXX XXX	[AE] Area Elective Course V #5	3	2+1	8
4	XXX XXX	[AE] Area Elective Course VI #6	3	2+1	8
5	XXX XXX	[NAE] Non-Area Elective Course II #2	1	1+0	3

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	XXX XXX	[AE] Area Elective Course VII #7	3	1+2	8
2	XXX XXX	[AE] Area Elective Course VIII #8	4	2+0	8
3	XXX XXX	[AE] Area Elective Course IX #9	4	1+1	8
4	XXX XXX	[AE] Area Elective Course X #10	3	0+1	6

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ELC 490	Internship	0	0+0	21
2	ELC 497	Graduation Work	0	0+0	9

Subtotal: 30

Total ECTS credits: **240**

AE - Area Elective Courses

№	Course code	Title	Th	Pr	Ects
1	COMP 256	Data structure and algorithms	4	1+1	8
2	EE 206	Principles of technical scheme	4	1+1	8
3	EE 204	Energy transformations	4	1+1	8
4	RTE 206	Telecommunication networks and systems	4	1+1	8
5	EE 326	Microprocessors	2	2+0	6
6	EE 315	Electricity production	2	2+0	6
7	PAE 327	Sensor technology	2	2+0	6
8	EE 319	Renewable energy systems	2	2+0	6
9	ELC 323	Electrical and electronic devices and systems	2	2+0	6
10	EE 312	Analysis of power systems	3	2+1	8
11	CENG 398	Computer architecture	3	2+1	8
12	EE 310	Electricity transmission and distribution	3	2+1	8

13	RTE 308	Basics of communication and bus systems	3	2+1	8	
14	RTE 310	Communication systems	3	2+1	8	
15	PAE 316	Process identification	3	2+1	8	
16	EE 314	Installation, operation and diagnostics of electrical devices	3	2+1	8	
17	EEM 336	Microelectronics and nanoelectronics	3	2+1	8	
18	CENG 396	Computer vision	3	2+1	8	
19	ELC 403	Operation, diagnostics and maintenance of electronic devices	3	1+2	8	
20	EE 401	Electrical systems protection	3	1+2	8	
21	CENG 491	Operating system	3	1+2	8	
22	ELC 401	Smart systems	3	1+2	8	
23	RTE 409	Digital communication	4	2+0	8	
24	PAE 423	Programmable logic controller (PLC)	4	2+0	8	
25	EE 403	Linear Electric Transmitter	4	2+0	8	
26	CENG 489	Computer network	4	2+0	8	
27	ELC 405	Design of electronic devices	4	1+1	8	
28	RTE 411	Mobile communication	4	1+1	8	
29	PAE 425	Process control	4	1+1	8	
30	CENG 487	Machine learning	4	1+1	8	
31	EE 405	Lighting techniques	4	1+1	8	
32	ELC 407	Technologies of integrated circuits	3	0+1	6	
33	RTE 415	Wireless communication networks	3	0+1	6	
34	EE 407	High Voltage Technique	3	0+1	6	
35	RTE 413	Digital signal processing	3	0+1	6	

<i>NAE - Non-Area Elective Courses</i>						
No	Course code	Title	Th	Pr	Ects	
1	PHIL 159	Philosophy	1	1+0	3	
2	SOC 110	Sociology	1	1+0	3	
3	LAW 110	Constitution of Republic of Azerbaijan and Fundamentals of Law	1	1+0	3	
4	SOC 180	Ethics and aesthetics	1	1+0	3	
5	MINF 167	Logic	1	1+0	3	

6	SOC 150	Introduction to Multiculturalism	1	1+0	3
7	BA 108	Principles of Entrepreneurship and Introduction to Business	1	1+0	3
8	IT 113	Information management	1	1+0	3
9	PA 139	Politology	1	1+0	3
10	EE 308	Research Methods	1	1+0	3
11	IT 372	Information Technology (Electrical and Electronics Engineering)	1	1+0	3
12	ENG 025	English for business and academic communication-2 (listening comprehension)	0	6+0	5
13	ENG 040	English for business and academic communication-3 (for academic purposes)	0	6+0	5
14	ENG 015	English for business and academic communication-1 (reading- writing)	0	6+0	5