

2025-10148 Mechatronics and robotics engineering (AZ) Bachelor

1					
No	Course code	Title	Th	Pr	Ects
1	TRX 111	History of Azerbaijan	2	2+0	5
2	FİZ 155	Physics	2	1+1	5
3	RİY 161	Linear algebra and analytic geometry	2	2+0	4
4	MRM 109	Computer graphics	1	1+1	4
5	AZD 140	Official and Academic Communication in the Azerbaijani language	0	2+0	4
6	XXX XXX	[NAE] Foreign Language I	0	6+0	8
Subtotal: 30					

2					
No	Course code	Title	Th	Pr	Ects
1	KOMP 196	Fundamentals of programming	2	3+0	7
2	MRM 102	Fundamentals of mechatronics and robotics	2	2+0	6
3	RİY 188	Mathematical analysis- 1	2	2+0	5
4	XXX XXX	[AE] Aera elective course V #5	2	0+1	5
5	XXX XXX	[NAE] Foreign language II	0	6+0	7
Subtotal: 30					

3

№	Course code	Title	Th	Pr	Ects
1	KMÜH 299	Data Structures and Algorithms	2	2+1	7
2	EEM 241	Electronics	3	0+2	6
3	RİY 196	Mathematical analysis- 2	2	2+0	4
4	MM 120	Civil Defence	3	0+0	3
5	XXX XXX	[NAE] Non-area elective course II #2	1	1+0	3
6	XXX XXX	[AE] Area elective course III #3	0	5+0	7

Subtotal: 30

4

№	Course code	Title	Th	Pr	Ects
1	MEX 215	Theoretical mechanics	3	2+0	6
2	PAM 437	Automatic control theory	3	1+1	6
3	PAM 238	Sensors and actuators	2	1+2	7
4	RİY 255	Applied mathematics	2	1+0	4
5	XXX XXX	[AE] Aera elective course VI #6	3	1+1	7

Subtotal: 30

5

№	Course code	Title	Th	Pr	Ects
1	MRM 401	Flexible production systems	2	1+1	6
2	KMÜH 399	Database systems	2	1+2	7
3	RTM 309	Processing of digital signals and images	2	1+2	7
4	MRM 301	Machine theory	2	1+1	6
5	XXX XXX	[AE] Area elective course XI #11	2	1+1	4

Subtotal: 30

6

№	Course code	Title	Th	Pr	Ects
1	MRM 302	Management of robots	2	1+1	6
2	MRM 304	Modeling and simulation of dynamic systems	2	2+0	6
3	XXX XXX	[AE] Area elective course VII #7	2	2+0	6
4	XXX XXX	[AE] Area elective course VIII #8	3	1+1	6
5	XXX XXX	[AE] Area elective course X #10	2	1+1	6

Subtotal: 30

7

№	Course code	Title	Th	Pr	Ects
1	MRM 303	Design of mechatronics and robotics systems	3	2+2	8
2	XXX XXX	[NAE] Non-area elective course I #1	1	1+0	3
3	XXX XXX	[AE] Area elective course XII #12	2	1+1	6
4	XXX XXX	[AE] Area elective course IV #4	1	2+1	6
5	XXX XXX	[AE] Area elective course IX #9	3	2+0	7

Subtotal: 30

8

№	Course code	Title	Th	Pr	Ects
1	MRM 497	Thesis	0	0+0	9
2	MRM 490	Internship	0	0+0	21

Subtotal: 30

Total ECTS credits: **240**

AE - Area Elective Courses

№	Course code	Title	Th	Pr	Ects
1	MRM 203	Foreign language for engineers	0	5+0	7
2	MRM 201	Technical foreign language	0	5+0	7
3	MRM 205	Specialized foreign language	0	5+0	7
4	KMÜH 495	Internet of Things	1	2+1	6
5	MRM 419	Micro and nanosystems	1	2+1	6
6	MRM 417	Computer-aided design and production	1	2+1	6
7	EEM 118	Electrotechnics	2	0+1	5
8	EM 108	Electrical drives	2	0+1	5
9	EM 106	Electrical machines	2	0+1	5

10	PAM 244	Fundamentals of automation	3	1+1	7	
11	PAM 246	Technical automation tools	3	1+1	7	
12	PAM 242	Automation and process automation	3	1+1	7	
13	MRM 310	Acoustics and noise control	2	2+0	6	
14	MRM 308	Design of crane manipulators	2	2+0	6	
15	MRM 324	Designing robotic movements	2	2+0	6	
16	MRM 326	Drone design	3	1+1	6	
17	MRM 314	Mechanics of robot manipulators	3	1+1	6	
18	MRM 312	Structural synthesis of robotics systems	3	1+1	6	
19	MRM 421	Industrial robots	3	2+0	7	
20	MRM 423	Mobile robots	3	2+0	7	
21	MRM 425	Software-controlled robots	3	2+0	7	
22	MRM 320	Adaptive management	2	1+1	6	
23	IT 374	Machine learning	2	1+1	6	
24	MRM 318	Technical vision systems	2	1+1	6	
25	MEX 258	Materials Science	2	0+1	4	
26	MEX 209	Materials technology	2	0+1	4	
27	MRM 311	Tribotechnics	2	0+1	4	
28	MRM 305	Hydraulic and pneumatic systems	2	1+1	6	
29	MRM 307	Hydraulic Machines and Transmissions	2	1+1	6	
30	MRM 309	Mechatronic systems	2	1+1	6	

<u>NAE - Non-Area Elective Courses</u>						
No	Course code	Title	Th	Pr	Ects	
1	SOS 180	Ethics and aesthetics	1	1+0	3	
2	SOS 110	Sociology	1	1+0	3	
3	FEL 159	Philosophy	1	1+0	3	
4	FEL 120	Logic	1	1+0	3	
5	SOS 150	Introduction to Multiculturalism	1	1+0	3	
6	HUQ 110	Constitution of Republic of Azerbaijan and Fundamentals of Law	1	1+0	3	
7	KOMP 223	Information Technologies	1	1+0	3	
8	MEX 479	Research methods	1	1+0	3	

9	KOMP 367	Information management	1	1+0	3	
10	BĪ 108	Principles of Entrepreneurship and Introduction to Business	1	1+0	3	
11	DBĪ 137	Politology	1	1+0	3	
12	RUS 151	Official and Academic Communication in Russian- 1	0	6+0	8	
13	ENG 131	Official and Academic Communication in English- 1	0	6+0	8	
14	ENG 132	Official and Academic Communication in English- 2	0	6+0	7	
15	RUS 152	Official and Academic Communication in Russian- 2	0	6+0	7	