

Western Caspian University
FACULTY OF INNOVATIVE ENGINEERING
050629 in Mechatronics and Robotics Engineering
EMPLOYEE TRAINING PLAN

Education Level - bachelor

Study Period - 4 years

Instruction Language - Azerbaijani, Russian, English

I semester		
Code	Compulsory Subjects	ECTS
ÜF-B02.01	Business and academic communication in a foreign language -1	6
ÜF – B03	Business and academic communication in the Azerbaijani language	4
İF-BO1	Linear algebra and analytical geometry	4
İF-BO4	Physics	5
İF-B18	Computer graphic	5
İF-B20	Civil defense	3
Total		27
<i>Elective subjects in general subjects</i>		
Code	Compulsory Subjects	ECTS
ÜFS-B04	First block 1. Philosophy 2. Introduction to multiculturalism 3. Sociology 4. The Constitution of the Republic of Azerbaijan and the bases of law 5. Logic 6. Ethics and aesthetics	3
Total		3
Per semester		30
II semestr		
Code	Compulsory Subjects	ECTS
ÜF-B01	History of Azerbaijan	5
ÜF-B02.02	Business and academic communication in a foreign language -2	6
İF-BO2	Mathematical analysis	8
İF-BO5	Fundamentals of mechatronics and robotics	6
Total		25
<i>Subjects determined by the higher education institution</i>		
Code	Compulsory Subjects	ECTS
ATMF-BO1	I block: 1. Multimedia technologies 2. Mechatronics systems	5
Total		5
Per semester		30
III semester		
Code	Compulsory Subjects	ECTS
ÜF-B02.03	Business and academic communication in a foreign language -3	3
İF-BO3	Applied mathematics	4
İF-BO6	Theoretical mechanics	6

İF-BO7	Basics of programming	7
Total		20
Subjects determined by the higher education institution		
Code	Compulsory Subjects	ECTS
ATMF-BO2	1. Expert systems 2. Inverse geometry and engineering graphics	4
ATMF-BO6	1. Basics of circuitry 2. Built-in microprocessors	6
Total		10
Per semester		30
IV semester		
Code	Compulsory Subjects	ECTS
İF-BO8	Theory of machines and mechanisms	6
İF-BO9	Data structure and algorithms	7
İF-B11	Design of mechatronics and robotics systems	8
Total		21
Subjects determined by the higher education institution		
Code	Compulsory Subjects	ECTS
ATMF-BO3	1. Web programming 2. Laser and its use	4
ATMF-BO5	1. Engineering mathematics 2. Systematic analysis	5
Total		9
Per semester		30
V semester		
Code	Compulsory Subjects	ECTS
İF-B10	Database systems	7
İF-B12	Electronics	6
İF-B13	Control of robots	6
Total		19
Subjects determined by the higher education institution		
Code	Compulsory Subjects	ECTS
ATMF-BO7	1. Optical information systems 2. Engineering design systems	5
ATMF-BO8	1. Distributed cloud calculations 2. Corporate information systems	6
Total		11
Per semester		30
VI semestr		
Code	Fönnin adı	ECTS
İF-B14	Modeling and simulation of dynamic systems	6
İF-B16	Processing of digital signals and images	7
İF-B17	Sensors and actuators	7
Total		20
Subjects determined by the higher education institution		
Code	Compulsory Subjects	ECTS
ATMF -BO9	1. Analytical processing of data 2. Basics of cryptography	5
ATMF-BO11	1. Materials and processes 2. Modern programming languages	5
Total		10
Per semester		30
VII semester		

Code	Compulsory Subjects	ECTS
İF-B15	Automatic control theory	6
İF-B19	Flexible production systems	6
Total		12
<i>Elective subjects in general subjects</i>		
Code	Compulsory Subjects	ECTS
ÜFS-B05	<i>Second block</i> 1. Information technology (by specialty) 2. Information management 3. Politology 4. Basics of entrepreneurship and introduction to business	3
Total		3
<i>Subjects determined by the higher education institution</i>		
ATMF-BO4	1. Means of communication 2. Internet technologies	5
ATMF-BO10	1. Decision making models 2. Digital electronics	5
ATMF-BO12	1. Robotics complexes 2. Industrial robots	5
Total		15
Per semester		30
VIII semester		
Code	Compulsory Subjects	ECTS
	Experience	21
	Thesis	9
Per semester		30
Total		240
Fall semester		
Classes start: September 15 Exam session: from December 29 to February 1 Holidays: February 2 to February 15		
Summer semester		
Classes start: February 16 Exam session: from June 1 to July 5 Vacation: duration is determined by the curriculum (6-10 weeks)		
Summer semester		
Classes start: July 16 to August 20 Exam session: August 21-27		