

MINISTRY OF SCIENCE AND EDUCATION
REPUBLIC OF AZERBAIJAN
WESTERN CASPIAN UNIVERSITY

Approved by
Executive Vice-Rector R.H. Baghirov
Western Caspian University

Code and name of the specialty: 050615 Information Security (Full time)
Study Period: 4 years (8 semesters)

" _____ " _____ 2026

CURRICULUM
(for Bachelor's level)

I. ACADEMIC SCHEDULE

COURSES	September					October					November					December					January					February					March					April					May					June					July					August				
	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	4								
I	=	=																::	::	::	::	=	=																			::	::	::	::	=	=	=	=	=	=	=	=							
II	=	=																::	::	::	::	=	=																			::	::	::	::	=	=	=	=	=	=	=	=							
III	=	=																::	::	::	::	=	=																			::	::	::	::	=	=	=	=	=	=	=	=							
IV	=	=																::	::	::	::	=	=			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	//	//	//	//															

Symbols : THEORETICAL TRAINING



INTERNSHIP



EXAMINATION SESSION



STATE FINAL CERTIFICATION



HOLIDAY



I. Academic Teaching plan

№	Subject code	Subject name	Credits number	Total hours	Non-curricular Hours	ClassRoom Hours	Including			Prerequisite(courses required to be taken) Course Codes	Intende D Semest Er Of Course (Fall or Spring)	Weekly class load
							Lecture	Seminar	Laboratory			
1	2	3	4	5	6	7	8	9	10	11	12	13
	ÜF - B 00	General subjects	24	720	390	330	30	300				22
1	ÜF - B 01	History of Azerbaijan	5	150	90	60	30	30			Fall-1	4
2	ÜF -B 0 2.01	Business and academic communication in a foreign language -1	7	210	105	105		105			Fall-1	7
3	ÜF B02.02	Business and academic communication in a foreign language -2	8	240	120	120		120		VS-B02 .01	Spring-2	8
4	ÜF – B03	Business and academic communication in Azerbaijani	4	120	75	45		45			Spring-2	3
	ÜFS - B00	Elective subjects	6	180	120	60	30	30				4
5	ÜFS -B04	First block 1. Psychology 2. Sociology 3. Fundamentals of law 4. Engineering ethics	3	90	60	30	15	15			Fall-5	2
6	ÜFS -B05	Second block 1. Critical thinking 2. Fundamentals of entrepreneurship and introduction to business 3. Education and career planning	3	90	60	30	15	15			Spring-6	2
	İF-BO0	Specialized subjects	120	3600	2265	1335	690	645				89
7	İF -BO1	Fundamentals of information security	6	180	120	60	30	30			Fall-1	4
8	İF -BO 2	Fundamentals of programming	6	180	120	60	30	30			Fall-1	4
9	İF -BO 3	Calculus	6	180	120	60	30	30			Fall-1	4
10	İF -BO4	Fundamentals of cybersecurity	6	180	120	60	30	30			Spring-2	4
11	İF -BO5	Fundamentals of networks (Fundamentals of net works)	6	180	120	60	30	30			Spring-2	4
12	İF -BO 6	Linear Algebra	6	180	105	75	45	30			Spring-2	5
13	İF -BO 7	Operating systems	5	150	90	60	0	60			Fall-3	4
14	İF -BO 8	Network security	5	150	90	60	30	30			Fall-3	4
15	İF -BO9	Discrete Mathematics	5	150	105	45	30	15			Fall-3	3
16	İF -B1 0	Web security	5	150	90	60	30	30			Spring-4	4
17	İF -B1 1	Probability Theory	5	150	105	45	30	15			Spring-4	3
18	İF -B1 2	Legal aspects of information security and cybersecurity	5	150	90	60	30	30			Spring-4	4
19	İF -B1 3	Information security management systems	5	150	90	60	30	30			Fall-5	4
20	İF -B1 4	Database security	5	150	90	60	30	30			Fall-5	4
21	İF -B1 5	Cloud security	5	150	90	60	30	30			Fall-5	4
22	İF -B1 6	Fundamentals of cryptography	5	150	90	60	30	30			Spring-6	4
23	İF -B1 7	Penetration testing basics	8	240	150	90	60	30			Spring-6	6
24	İF -B 1 8	Fundamentals of electronics and IoT security	5	150	90	60	30	30			Spring-6	4
25	İF -B 1 9	Secure programming	5	150	90	60	30	30			Fall-7	4
26	İF -B20	Digital Forensics fundamentals	8	240	150	90	60	30			Fall-7	6

27	IF -B21	Security of industrial management systems	5	150	90	60	30	30			Fall-7	4
28	IF -B22	Civil defense	3	90	60	30	15	15			Fall-5	2
	ATMF-BOO	Subjects determined by the higher education institution	60	1800	1110	690	390	300				46
29	ATMF -BO1	Block I: 1. Construction and analysis of algorithms 2. System design	6	180	105	75	45	30			Fall-3	5
30	ATMF -BO2	Block II: 1. Security of corporate network (information) systems 2. Malware analysis	5	150	90	60	30	30			Fall-3	4
31	ATMF -BO3	Block III: 1. Social network analysis 2. Social engineering	4	120	75	45	30	15			Fall-3	3
32	ATMF -BO4	Block IV: 1. System programming 2. C programming language	5	150	90	60	30	30			Spring-4	4
33	ATMF -BO5	Block V: 1. Cloud technologies 2. Managing IT projects	5	150	90	60	30	30			Spring-4	4
34	ATMF -BO6	Block VI: 1. Database management systems 2. Microservices architecture 3. Cyber risk management	5	150	90	60	30	30			Spring-4	4
35	ATMF -BO7	Block VII: 1. Machine learning 2. Fundamentals of digital image and video processing	4	120	75	45	15	30			Fall-5	3
36	ATMF -BO8	Block VIII: 1. Graph theory 2. Security of mobile and wireless devices	5	150	105	45	30	15			Fall-5	3
37	ATMF -BO9	Block IX: 1. Programming for mobile devices 2. Web programming	4	120	75	45	30	15			Spring-6	3
38	ATMF -B10	X block: 1. Applied statistics and data analytics 2. Parallel and distributed computing	5	150	90	60	30	30			Spring-6	4
39	ATMF -B11	Block XI: 1. Security of VoIP systems 2. Blockchain technologies	4	120	75	45	30	15			Fall-7	3
40	ATMF -B12	Block XII: 1. Distributed Data systems 2. Fundamentals of Data Center Operations	4	120	75	45	30	15			Fall-7	3
41	ATMF -B13	Block XIII: 1. Digital transformation 2. Corporate network (information systems security)	4	120	75	45	30	15			Fall-7	3
42	ATMF -B13	XIII block: 1. Planning and Design of Scientific Research 2. Research Methods and Ethics 3. Scientific Writing and Publication Processes	3	90	60	30	15	15			Fall-7	3
43		Internship	30								Spring-8	
		Total	243									

I. DURATION OF TRAINING

Education year	Theoretical training	Exam	Internship	Holiday
I	30	10		10
II	30	10		12
III	30	10		12
IV	15	5	20	4
Total	105	35	20	38

	1 st semester	2 nd semester	3 rd semester	4 th semester	5 th semester	6 th semester	7 th semester	8 th semester
Weekly class load	22	23	22	23	23	22	23	
Examinations number	6	5	5	6	6	7	6	
Credits number	30	30	30	30	30	30	33	30

Director of the Center for Organization and Management of Education:
 _____ PhD, P. Akhundov
 «_____» _____ 2026

Scientific Council of WCU «_____»
 Approved at the meeting of _____ dated in the year 2026
 (Protocol No. _____).